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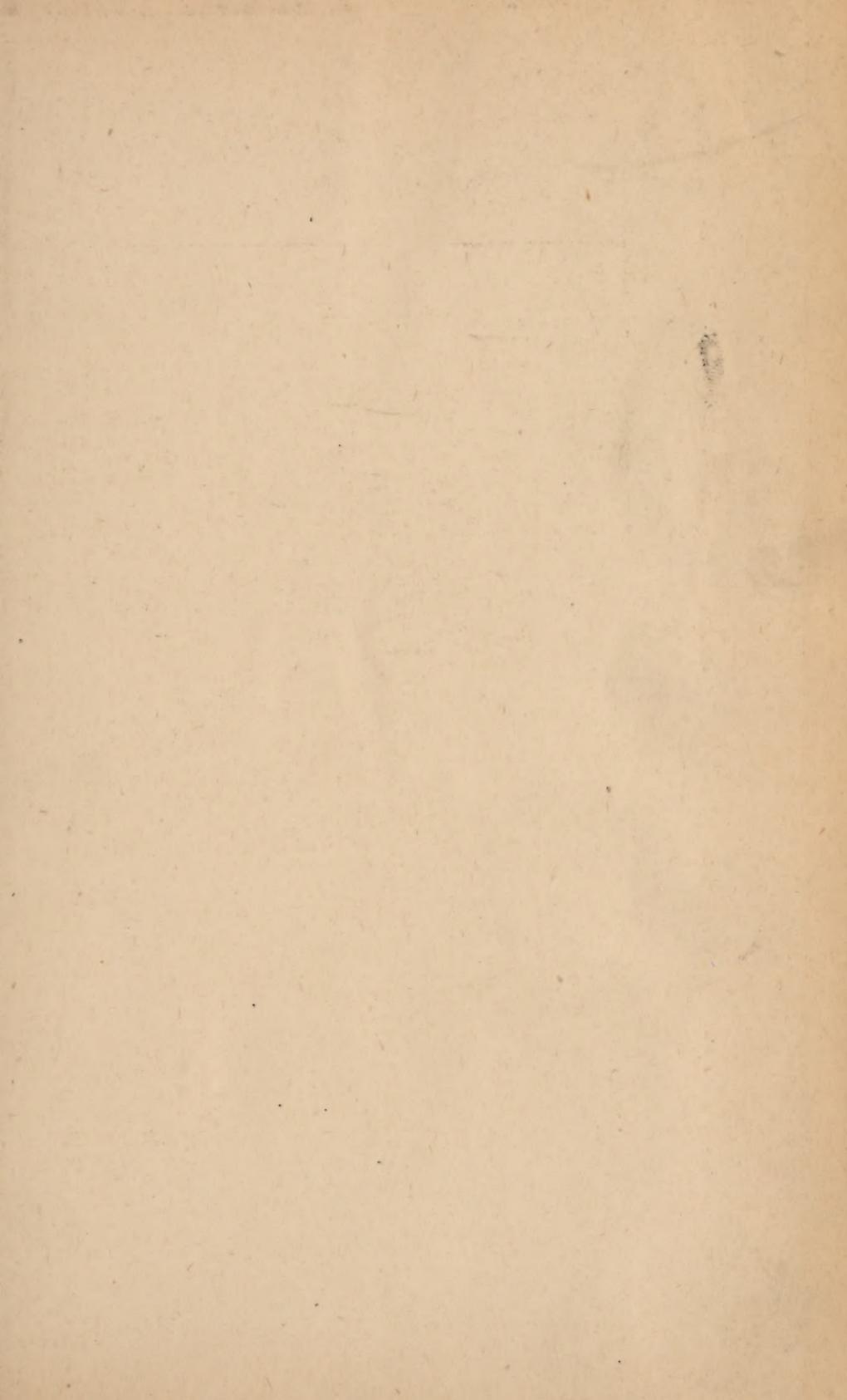


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Number 362298

GPO 3-10543

Form 113c, W. D., S. G. O.  
(Revised June 13, 1936)













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# *Manual of Instructions*

FOR  
**LOCAL HEALTH OFFICIALS**  
CONCERNING  
**EMERGENCY HEALTH PROBLEMS**



*Issued by*

**INDIANA STATE BOARD OF HEALTH**  
1098 West Michigan Street  
Indianapolis, Indiana

September, 1942





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## FOREWORD

This manual has been prepared and distributed to fulfill two specific needs:

- (1) To acquaint city and county health officers with certain of their responsibilities about which there has been considerable confusion as a result of the critical conditions of the last year;
- (2) To furnish information and specific instructions on how to handle public health and sanitation problems that may arise out of potential major disasters (such as flood, fire, water shortage, bombing, sabotage, etc.).

It should be understood that this manual does not include all of the state health laws and the rules and regulations of the State Board of Health, nor does it cover all aspects of public health work in Indiana today. It is written specifically to apprise local health officers of their responsibilities and to assist them in the discharge of these responsibilities.

It is hoped that the instructions contained herein will be located easily by the index and that they will be of value in the rendering of good public health services in Indiana at this crucial time, as well as being helpful in meeting emergencies.

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PART I

*Administration*



## Part I

### ADMINISTRATION

#### *General Information*

The Indiana State Board of Health exists today as the sole public agency in the state devoted entirely to the prevention of the spread of communicable disease, to the elimination of health hazards, and to the protection of the health of the state's three and one-half million citizens. Organized in 1881, as an official unit of state government, the State Board of Health has stressed continuously during the last sixty years the importance of preserving and promoting the health of the state's population. Now operating under war conditions, this Board is keenly aware of the increased significance of its responsibilities.

The State Board of Health is endeavoring to eliminate all health menaces that are prevalent throughout the state. It is also endeavoring to prevent the inception of any possible menace to the public health. It is doing this by utilizing the full force of its educational advisory service and law enforcement functions, which are all directed toward the prevention of disease, the prolongation of life, and the promotion of physical and mental efficiency of Indiana's citizenry.

The Board works in close co-operation with local community health officials in diagnosing and alleviating local health obstacles, such as communicable disease, and insanitary water, food and milk sources. It is therefore clearly apparent that the state health laws and the rules and regulations of the State Board of Health, which serve to protect the health of the citizens, must first be understood by the local health officials, and secondly must receive their backing and support.

The entire program of the Board of Health functions under the supervision of the Secretary of the Board. Working in close co-operation with him are the various Division and Bureau Heads, all having specific functions which, when co-ordinated with the entire program, endeavor to promote and protect the health of the state's population.

#### *Legal Authority for the State Board of Health*

are as follows:

The powers and duties of the Board are set forth in Sections 6 and 7 of Chapter 144 of the Indiana Acts of 1909.<sup>1</sup> They

SECTION 6. The State Board of Health shall have supervision of the health and life of the citizens of the State and possess all the powers necessary to fulfill the duties prescribed in the statutes and to bring action in the courts for the enforcement of health laws and health rules. They shall have power to make sanitary inspections and surveys in all parts of the State and of all public buildings and property in regard to the presence of cases of infectious and contagious diseases and the possible cause and the source of diseases; to establish quarantines and to order and execute what is reasonable and

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<sup>1</sup> Appendix, page 87.

necessary for the prevention and suppression of disease; to close schools and churches and forbid public gatherings when deemed necessary to prevent and stop epidemics; to condemn and abate conditions causative of disease; to regulate and prescribe the character and location of plumbing, drains, water supply, disposal of sewage, lighting, heating and ventilation and all sanitary features of all public buildings and institutions; to pass rules governing the duties of all health boards and all health officers, governing the collection of vital statistics, governing the hygienic disposal, transportation (and) disinterment of the dead, governing the specific features of quarantine and for the enforcement of the State health and registration laws and any violation of said rules shall be punished by a fine of not less than five nor more than fifty dollars for each offense. Said rules shall bear the seal of said Board and be attested by the Secretary and they shall be promulgated by the State Board of Health by publishing the same in pamphlet or leaf form and supplying copies to all judges, or county auditors, all district prosecutors, all health officers, and any citizen asking for the same. County health commissioners shall make public announcement of the existence and receipt of said rules for the public benefit. The State Board shall also have power to discharge any county health commissioner or health officer in the State, either for intemperance, failure to collect vital statistics, obey rules, keep records, make reports, answer letters of inquiry of said Board concerning the health of the people, or neglect of official duties. Such removal, however, shall not be made until five days' notice of charge or charges shall have been mailed to him by said Board, naming a time and place for hearing by the State Board of Health, not less than two weeks later than time of mailing such notice to said health officer; provided, however, that any county health commissioner or other health officer so removed by the State Board of Health shall have the right to appeal from the action of said Board to the circuit or superior court of the county in which such health officer resides, and during the pendency of such appeal, such health officer may serve in his official capacity. Any health officer discharged, as herein provided, shall be ineligible to hold the position of health officer for four years, and the vacancy shall be filled by the proper authority, as provided in this Act.

SECTION 7. The State Board of Health shall have supervision of the system of registration of births, deaths and marriages, as herein provided, and they shall make up such forms, from time to time, as they may deem necessary for the thorough registration and report of vital and sanitary statistics throughout the State. The Secretary shall be superintendent of all such registration, and with the consent of the majority of all members of said Board, shall have the power to appoint and fix the compensation of any clerical force that may within his judgment be or become necessary for the maintenance and keeping the records of said Board of Health.

### *Procedure for Obtaining Services of State Board of Health*

The Division of Local Health Administration of the State Board of Health functions to bring about closer technical and professional relationship between the State Board of Health and the local

health departments throughout the state for the purpose of improving the quality and quantity of local health services. Since this Division

serves as the liaison between the various divisions and bureaus of the State Board of Health and the 193 local health departments, all requests for services from the State Board of Health and general communications to the State Board of Health from local health officers should be directed to this Division. This policy has been adopted in order to insure that all requests from local health departments be channeled to their proper destination with greater expediency, and to integrate and co-ordinate the multiplicity of services rendered by the State Board of Health to the local health departments throughout the state. In certain cases, self-addressed requisition cards and envelopes are directed to a particular division or bureau of the State Board of Health and in these instances they should continue to be used.

If the above plan is followed by all local health officers, it will materially improve the service that the State Board of Health can render.

In attempting to discharge the numerous responsibilities of the State Board of Health most effectively, a plan of decentralization of many of the activities of the State Board of Health to a more local level has been developed within recent years. This plan of decentralization originated in 1937 with the establishment of four district health departments including nineteen counties. In 1938 another district with four counties was added. The improvement of local health services resulting directly from such organization has been responsible for the extension of this type of organization to include most of the areas contributing directly to the war effort. The justification for concentration of services in these critical areas, at the expense of other communities, is readily understood. Keeping the war effort at its peak of efficiency is paramount to all other responsibilities today. Three more district health departments have been developed and at present forty-five counties are included in the eight district health departments. The addresses of the eight district headquarters and the counties included in them are listed as follows:

#### District Health Department No. 1—

Address: 115 N. Prince Street, Princeton, Indiana

Includes: Sullivan, Knox, Pike, Gibson, Posey and Warrick Counties

#### District Health Department No. 2—

Address: Bolte Building, Huntingburg, Indiana

Includes: Daviess, Dubois, Orange, Spencer, Perry and Crawford Counties

#### District Health Department No. 3—

Address: 150 E. Spring Street, New Albany, Indiana

Includes: Washington, Scott, Clark, Floyd and Harrison Counties

#### District Health Department No. 4—

Address: John Paul Homes, Versailles, Indiana

Includes: Jennings, Ripley, Dearborn, Ohio, Jefferson and Switzerland Counties

District Health Department No. 5—

Address: 633 N. Washington St., Columbus, Indiana

Includes: Johnson, Shelby, Brown, Bartholomew, Decatur and Jackson Counties

District Health Department No. 6—

Address: 344 S. College Avenue, Bloomington, Indiana

Includes: Morgan, Owen, Monroe, Green, Lawrence and Martin Counties

District Health Department No. 7—

Address: 708 Jackson Street, LaPorte, Indiana

Includes: Porter, LaPorte, Starke and Marshall Counties

District Health Department No. 8—

Address: 111 N. Jefferson Street, Rockville, Indiana

Includes: Warren, Fountain, Vermillion, Parke, Vigo and Clay Counties

Local health officers whose areas of jurisdiction are within these districts should look upon their respective district office as a subdivision of the State Board of Health, prepared to serve them in the same manner as the State Board of Health, with the exception of certain facilities, such as the Laboratory. In this manner the facilities of the State Board of Health have been brought closer to a local level and consequently are much more readily available. Therefore local health officers within districts should acquaint themselves with the district personnel and the facilities of their district office.

**Legal Authority for District Health Departments** This is found in Section 11 of Chapter 2 of the Acts of 1936<sup>1</sup> (special session of the 79th General Assembly) which reads as follows:

SECTION 11. The regular employees of the State Board of Health may be assigned to the performance of the duties prescribed in this Act, either on a full-time or a part-time basis, or such additional qualified personnel may be employed as, in the judgment of the State Board of Health and the Governor, may be necessary to administer the provisions of this Act. The State Board of Health is hereby authorized to enter in co-operative agreement with the health authorities of any municipal corporation or health district of the State by virtue of which such assistants, investigators and employees may be appointed as are found to be necessary and qualified to co-operate with the State Board of Health and the Federal Government in conducting the health work in such municipal corporation or health district, in conformity with the provisions of this Act and of the Federal "Social Security Act" and the rules and regulations issued in conformity therewith. Agreements may be made by virtue of which any two or more of such municipal corporations or health districts may co-operate with the State Board of Health, as hereinbefore provided, and the expenses incurred in carrying on such work shall be

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<sup>1</sup> Appendix, page 91.

allocated between or among such municipal corporations and health districts and the State Board of Health as may be mutually agreed upon. All such appointments shall be made subject to the approval of the State Board of Health, and the State Board of Health is hereby authorized to pay such proportionate share of the salaries and expenses of such assistants, investigators and employees as may be agreed upon by the State Board of Health and the health authorities of such municipal corporations and health districts, and as prescribed in the co-operative agreement entered into for that purpose.

### ***Public Health Nursing Services***

Public health nursing services have been greatly extended in Indiana in recent years, particularly in the rural areas. Most counties in the state now have one or more public health nurses. These nursing services have been promoted extensively by the State Board of Health, and unfortunately most of them are still heavily subsidized by the State Board of Health, although this is a local responsibility.

The personnel of the county public health nursing services are prepared to render invaluable service to the local health officers, both city and county, in the discharge of the health officer's numerous responsibilities in this present emergency. Local health officers who do not yet have the assistance of county public health nurses in their areas should communicate with the Division of Local Health Administration regarding financial assistance from the State Board of Health in the promotion of such additional local public health services.

All county public health nursing services receive consultation and limited supervision from the Bureau of Public Health Nursing of the State Board of Health. Public health nurses of counties within the districts are under the direct supervision of the district director and district supervisory nurse.

### ***Other Services of the State Board of Health***

The State Board of Health is prepared to offer local health officers the consultant services of the Epidemiologist and specialists in the field of environmental sanitation, including engineering, food and milk sanitation. These services have proved invaluable in the investigation and control of epidemics, food-poisoning outbreaks, etc., and also in the promotion, enactment and enforcement of local ordinances, such as the standard milk ordinance, the standard restaurant ordinance, and general sanitation ordinances as regards trailer camps, sewers, plumbing, etc.

The Division of Health and Physical Education is prepared to render direct services in the way of visual education and health lectures at the request of local health officers.

Assistance is also available to health officers in their planning to meet the needs in the field of Maternal and Child Hygiene. This service would include planning for the care of premature and newborn infants, home delivery nursing services, immunization programs, nutrition programs, dental programs, prenatal conferences, well baby conferences, and day nursery facilities. Many health officers will be faced with problems

involving the above phases of public health. It is the desire of the State Board of Health to be of as much assistance as possible to all local health officers in their solution of these emergency problems.

### ***Legal Authority for Local Boards of Health and Local Health Officers***

This is found in Chapter 217 of the Acts of 1935,<sup>1</sup> entitled "An Act providing for the appointment by the county commissioners, upon approval by the State Board of Health, of county health officers; for the appointment by city boards of health upon approval of the State Board of Health, of city health officers; for making it permissible for boards of county commissioners and common councils to provide for the appointment of full-time health personnel; and for the maintenance of the same."

### ***Legal Responsibilities of Local Health Officers***

The source of most general information regarding the legal responsibility of local health officers is found in the state law commonly referred to as the "Indiana Health Law."<sup>2</sup> This law was originally enacted in 1891, amended in 1909 and again changed in part by the 1935 Legislature.

Briefly, the legal responsibility of the health officer can be classified in two categories: (1) enforcement responsibilities, and (2) collection and recording responsibilities.

In considering his enforcement responsibilities, it is specified in the statutes that it is the duty of the county and city health officers to enforce the health laws of the state, and the rules and regulations of the Board of Health based on these laws. In addition to this, the city health officers are responsible for the enforcement of local ordinances pertaining to public health.

The powers bestowed upon the health officer to carry out his wide responsibility to protect the public health are clearly defined in the following excerpt from Section 2 of the above-mentioned Health Law<sup>2</sup>:

"All county health commissioners, and all city health officers, shall have power to make sanitary inspections and surveys of all public buildings and institutions, to enter upon and inspect private property, at proper times after formal notice, in regard to the possible presence, source and cause of disease, to establish quarantine in connection therewith, to order what is reasonable and necessary for the prevention and suppression of disease, to close schools and churches and forbid public gatherings in order to prevent and stay epidemics, and in all reasonable and necessary ways to protect the public health.

"And it shall be unlawful, for any person, firm, company or corporation to institute, permit, or maintain any conditions whatever, which may transmit, generate or promote disease; and it shall be the duty of all health commissioners and local health officers upon hearing in any way of the existence of said unlawful conditions, within their respective jurisdiction, to order their abatement in writing, if demanded, and speci-

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<sup>1</sup> Appendix, page 94.

<sup>2</sup> Appendix, page 87.

fying particularly, wherein said conditions may transmit disease, and naming the shortest reasonable time for abatement. Upon refusal or neglect of any person, firm, company or corporation to obey said order, then the district prosecutor of the district wherein the offense occurs, upon receiving the information from said health commissioners or health officers, shall institute proceedings in the court for enforcement."

It should be noted that the health laws of Indiana grant local health officers an unusual amount of discretionary power in the enforcement of these laws, where needed. This point is clarified in the following excerpt of an important decision of the Appellate Court regarding a controversy over quarantine.

"The health officers are required to enforce health laws, rules and regulations within their respective jurisdiction. They are given broad discretionary powers in determining when to act and the means and measures to be employed to accomplish the end in view. They may establish quarantine and are expressly authorized in connection therewith to order what is reasonable and necessary for the prevention and suppression of disease and in all reasonable and necessary ways to protect the public health. In carrying out the measures deemed necessary to protect the public health, each commissioner may act either in person or by deputy and may completely isolate the family afflicted with a disease liable to affect the public health . . . The decision of the health commissioner with reference to the necessity for action and the means to be employed, in the absence of connivance and fraud, is conclusive and final."

Referring to the second of the two main categories of the health officers' responsibilities, that of collecting and recording, it should be noted that this refers to two activities: (1) the collection and recording of birth and death statistics, and (2) the collection and recording of communicable disease reports. More detailed information is given regarding these two responsibilities in the following appropriate sections of this manual. However it would seem fitting to point out in this section on Administration that the collection of vital statistics in Indiana is much more complete than the collection and recording of communicable disease reports. This is rather difficult to understand since the quarantine law mandates all physicians to report communicable diseases to the health officer having jurisdiction in that area. It specifies further that where no physician is in attendance it shall be reported by a member of the household. A list of the diseases which are considered to be communicable is found in Rule 10 of the Indiana State Board of Health. This list includes thirty-seven diseases, twenty-five of which are reportable to the local health officer and twelve of which are declared to be reportable directly to the State Board of Health. It would seem most probable that this discrepancy in reporting by many practicing physicians is due to their lack of knowledge of the law on this subject. It is therefore suggested that all health officers inform each practicing member of the profession in his community by personal interviews, telephone calls, or by letter, of the need for his unselfish and whole-hearted co-operation in the nation-wide attempt to get infectious diseases discovered early, reported promptly, and isolated as satisfactorily as

possible. The health officer, the physician, and the civilian population, through mutual co-operation in the field of communicable disease and other public health matters, can serve our country as truly as can the armed forces in the field of battle.

### *Participation in Local Civilian Defense Councils*

Local health officers, by virtue of their offices, are official members of their local Civilian Defense Council. The reasoning for this automatic appointment was undoubtedly based on the assumption that the local health officer was the key individual in that area to advise the council and collaborate with it in planning for the protection of the public health. It is obvious that the amount of participation of the local health officer in this role is dependent, to a large extent, on the health officer's initiative. It is felt that the two most important responsibilities of the health department in an emergency are in the fields of environmental sanitation and communicable disease control. Two sections of this manual have therefore been devoted to suggestions on how the health department can and should function if and when an emergency arises. It is imperative that something more than casual thought be given to the preparation of plans to meet such eventualities if we are to avoid the needless suffering and loss of life experienced by other countries.

The first prerequisite of a smooth-functioning local Defense Council would seem to be that each member of the Council understand his own and each other's responsibilities and objectives. The health officer certainly should not attempt to function totally independent of such related members of the Defense Council as the Chief of Emergency Medical Service and the Chiefs of other Civilian Protection Services. It is imperative that he understand where his responsibilities begin and leave off in connection with such public utilities as water supply and sewage disposal. As a specific example, much more effective results will occur if there is an understanding between the health officer and the municipal water superintendent regarding their mutual responsibilities in protecting the water supply. While the emergency medical service is primarily interested in providing adequate medical care during the emergency, certainly a close relationship exists between their responsibilities and duties and those of the health department, and it goes without stating that each can function much more effectively with a sympathetic understanding of their related problems.

It is undoubtedly true that much of our preparation for the protection of the public health during this emergency is nothing more than the institution and carrying out of sound public health practices during normal times, with the additional provisions for handling emergency situations as they arise.

PART II

*Vital Statistics*



## Part II

### VITAL STATISTICS

#### *General Information*

Vital statistics can be defined briefly as the numerical quantitative treatment of those vital processes pertaining to life. The recording of deaths and births has been considered the basis around which vital statistics have been developed. However it now includes many other facts with social and economic bearing. This function has been incorporated in the official health department practice because of its direct and close relationship to the health and welfare of the public.

Vital statistics is in reality a social process of ancient origin. It was necessary to count the population in Biblical times. One of the main reasons or needs for this knowledge, it might be stated, was to ascertain relative strength in preparation for war. Gradually the vital facts, such as birth and death, were also recorded.

Since 1800 we have had census counts taken at regular ten-year intervals. The enumeration for the census is of a certain date, such as April 10, but births and deaths are events that must be recorded as they occur. This kind of figure is different from the census figure. Population is a static fact which can be ascertained as of a certain date, but due to the fact that questioning persons who rely on their memory of particular events, such as birth and death, is subject to such a great error, each event must be recorded at the time it occurs. The two essential methods of getting vital statistics are: (1) enumeration for the census, and (2) recording of births and deaths.

Registration of deaths has been national in scope only since 1900, and there was no registration of births covering the entire country until 1915. Birth records are still not as accurate as death records. Complete records of deaths have been kept in Indiana since 1900 and state registration of births began in 1907. Although these dates apply to the state level, many local records date back as early as 1881.

The need for vital statistics constantly becomes greater with the increasing complexity of the social structure of the world, and with the great contribution made by medical and related sciences in correcting the conditions which cause sickness and death. Although one could be just as healthy with no officially recorded birth certificate as with one, and a duly signed death certificate and burial permit are of little importance to the deceased, such services are of vast importance to the public health. Legal and orderly disposition of the dead is insured by the properly executed certificate. The death certificate also supplies data to indicate where and when, and how, and upon whom mortality factors have operated. This information is highly important in planning and directing public health programs.

There is hardly a relation of life—social, legal or economic—in which the evidence furnished by an accurate registration may not prove to be of the greatest value, not only to the individual but also to the

public at large. It is not only an act of civilization to register birth certificates, but it is also good business, for they are frequently used in many practical ways. There are increased demands every day for proof of the time and place of birth. Right now one of the most important reasons for this proof is to establish claim to citizenship. Other needs for proof of birth by official registration are as follows:

- (1) As evidence of the age and legitimacy of heirs;
- (2) As proof of age to determine the validity of a contract entered into by an alleged minor;
- (3) In proving the name, age, birthplace and parentage of a child for school records, working rights, establishing identity and other purposes;
- (4) As evidence to establish age and proof of citizenship and descent in order to vote;
- (5) As evidence to establish the right of admission to the professions and to many public offices;
- (6) As evidence of legal age to marry;
- (7) As evidence to prove the claims of widows and orphans under the Widows and Orphans Pension Law;
- (8) As evidence to determine the liability of parents for the debts of a minor;
- (9) As evidence for the administration of estates, settlement of insurance and pensions;
- (10) As evidence to prove the irresponsibility of children under legal age for crime and misdemeanors, and various other matters in the criminal code;
- (11) As evidence in the enforcement of law related to education and child labor;
- (12) As evidence to determine the relationship of guardian and ward;
- (13) As proof of citizenship in order to obtain a passport;
- (14) As evidence in the claim for exemption from, or the right to, jury and military service.

The mechanism legally provided for collection of reports of births and deaths is the Vital Statistics Laws of the particular states concerned. These laws vary to some extent with the different states, and in some instances are not the same in cities of the same state. The Federal Government's organization for handling and collecting vital statistics is the Bureau of Census, a part of the Department of Commerce. The registration area for deaths was established by the Bureau of Census in 1880, with only Massachusetts and New Jersey qualifying. The registration area for births was established in 1915, and included

ten states and the District of Columbia. The admission of a state to one area did not indicate its presence in the other, nor does admission necessarily mean permanent retention, unless all requirements continue to be met. Not until 1935 were all states in the Union in both areas. The minimum requirements for the admission of a state to either registration area is the state-wide application of a law designed to bring about prompt reporting of births and deaths, and evidence that birth and death certificates are on file for at least 90% of these events in any given year.

Indiana's first Vital Statistics Law was passed in 1907 and created as an Act to collect accurate records of deaths, births, contagious diseases and marriages, prescribing the duties of the State Board of Health and all health officers in relation thereto, providing penalties for the violation of the provisions of this Act, and repealing all Acts in conflict. This 1907 enactment was amended in 1913, and in 1941 provision was made through another act authorizing the Courts of the state to determine the time and place of birth of a person on petition. Although much improvement and progress has occurred in the last decade regarding the keeping of vital statistics, the improvements have not kept pace with the increased demands, and there continues to be a need for more thorough understanding of the problem and for more complete legislation to provide for the keeping of accurate vital statistics. Health officers have a leading role to fulfill in this responsibility, and it is hoped that the following information will be of assistance in the more orderly "bookkeeping of humanity."

### *Legal Authority and Provisions for Keeping of Vital Statistics in Indiana*

These provisions are found in the Vital Statistics Law<sup>1</sup> originally adopted in 1907 and later amended in Chapter 239 of the Acts of 1913.

The following pertinent excerpts

from this Law include the provisions for the reporting of births and deaths and the issuing of burial transit permits.

"It shall be the duty of all physicians, mid-wives, and all other persons who are now permitted or entitled to treat diseases or deformity or practice obstetrics in the State to report upon blank forms provided by the State Board of Health, all deaths and births which may occur under their supervision . . . . The report of deaths . . . . shall be made immediately and a certificate of death shall be filed and a burial or removal permit issued prior to any disposition of the body. Reports of deaths and births . . . . which occur in cities . . . . shall be made to health officers of those cities . . . . and when they occur in the country outside of cities . . . . they shall be reported to the county health commissioner or his deputies; but reports of deaths occurring outside of cities . . . . may be made to the health officer located near to the place where the death occurred; and said health officer or commissioner, if the certificate of death be properly made out, shall issue a burial permit, which permit shall be valid in all parts of the state. Upon the reporting of any death occurring outside of cities . . . . to the nearest health officer other than the county health

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<sup>1</sup> Appendix, page 98.

commissioner of the county wherein death occurred, said certificate of death shall be sent immediately for record, by said health officer to the county health commissioner of the county wherein said death occurred . . . it shall be unlawful for any undertaker, sexton or other person to bury, cremate, or otherwise dispose of any human body until he has received a permit to do so from a health officer; and no such permit shall be issued by any health officer or deputy until there has been delivered to him a certificate of death written in unfading ink or indelible pencil, and completely and accurately filled out by the proper person."

This latter clearly indicates that it is the intent of the law that the person in attendance of the deceased shall fill in and officially sign the medical certification of the death certificate. Therefore, any plan to short-circuit the attending physician's statement and actual signature on the death certificate would defeat the intent of this law and would undoubtedly lead to confusion. Besides contributing to the inaccuracy of the statement included on the medical certification of the death certificate, it would tend to eliminate an important safeguard against criminal disposition.

The matter of the issuance of the burial permit after proper signing of the medical certification by the attending physician is an entirely different problem. The State Board of Health has recognized the difficulties encountered by funeral directors in obtaining the burial permit after the death certificate has been properly completed. Because of this difficulty, the State Board of Health has approved the plan for health officers to deputize, at their discretion, funeral directors as registration deputies in order that they can issue the burial permit upon receipt of the death certificate duly signed by the physician in attendance. Naturally the health officer is responsible for the actions of any such deputies under him.

In addition to this the State Board of Health has approved the deputizing by the local health officer of a dependable representative of large hospitals and institutions (usually limited to night hours) in order that bodies (to be transported long distances) may be removed from the institutions without first contacting the local health officer. However such deputization is left to the judgment of the local health officer entirely since he is responsible for the action of his deputies.

### *Information Regarding Deputies (Registration and Special)*

registration deputies without permits to themselves. When so appointed they should be authorized only to receive death certificates and to sign burial permits.

Special deputies may also be appointed by the health officer, but there is no provision in law for paying a stated salary or compensation to such deputies. Any remuneration for their services must come from the salary of the health officer (Opinion of the Attorney General, 1938, page 175). It should be noted that the provisions of Rule 1 of the General

Registration deputies may be appointed by the health officer as provided for in Rule 1 of the General Rules of the State Board of Health. Undertakers, in most instances, are quite willing to serve as

compensation so they may issue burial

Rules of the State Board of Health regarding this point are no longer in effect, due to the repeal of Section 12 of the Health Law, Chapter 144 of the Acts of 1909.

Health officers who feel that the duties of their office require additional trained personnel should note the provisions of Section 6 of Chapter 217 of the Acts of 1935, which provide for full-time public health nurses or other full-time health personnel.

All deputies must look to the local health officer for supplies and instructions and should not correspond with the Indiana State Board of Health except through the local health officer and over his signature. All reports, official correspondence and requisitions from each local health jurisdiction, therefore, should come from the local health officer and no other.

### **Delayed Birth Registration**

The subject of delayed birth registration has assumed unusual importance to all health departments within the last two years. This has been a result of the incomplete status of most health department birth records in the face of the tremendous increase in the demand for birth certificates.

The following excerpt is from a paper read by A. W. Hedrich, Sc.D., F.A.P.H.A., Chief, Bureau of Vital Statistics, Maryland State Department of Health, before the annual A.P.H.A. convention held in the fall of 1941 at Atlantic City. Because Dr. Hedrich has stated the important issues of this problem so clearly, the liberty has been taken to reproduce the part of his paper referring to the distinction between registrations made in infancy and registrations at a later date in life.

"There are important reasons why a fundamental distinction should be made between registrations in infancy and registrations at adolescence or adulthood. In effect, a birth certificate is a statement of an individual, usually the attendant at birth, that a child was born to certain parents at a stated time and place. This certificate, if filed at or near the time of birth, enjoys exceptional prestige in the eyes of courts and other governmental agencies. This prestige derives from the legal presumption that the statements on the certificates are exceptionally trustworthy; first because the maker of the certificate is likely to have observed and remembered the particulars of the birth correctly; and second, because there is ordinarily little motive for misstatement.

"Statements made before there is a temptation for misstatement carry especial weight as evidence, so that they have acquired a special Latin designation, namely, *ante litem motam*, meaning 'before the litigation arose.'

"On the other hand, when a certificate is filed later in life, the foregoing presumptions no longer hold. We have abundant evidence that people become confused concerning birth dates and even birthplaces. Furthermore, adult registrations are usually requested because the registrant needs or desires to prove something; there is, therefore, frequently a powerful motive for misstatement of birth date or birthplace, and occasionally parentage. Experience having shown that unsupported registrations filed in adulthood are often incorrect, such registrations occupy in the eyes of the law and of governmental agencies, so low an estate that they too have acquired a Latin designation, namely *nunc pro tunc*, meaning 'now,

in place of then.' To the cognoscenti, *nunc pro tunc* declarations are under a cloud of opprobrium.

"There have evolved, therefore, within the last two decades, various special requirements for the delayed registration of births. These safeguards were occasioned by legislation in such fields as alien exclusion, child labor, veterans' pensions, poor relief, aid to dependent children, and, most important and recent, national defense.

"In the last decade or so, a number of the border states, where the smuggling in of aliens became a problem, began to accept delayed birth certificates only after some sort of approval by a court. In 1933, a committee of this section recommended that delayed registration through court procedure be made standard, but in the majority of states delayed registrations continued to be filed upon the certificate of an attendant, although in some cases supporting affidavits were required. These affidavits too often were untrustworthy; nearly always they were, in effect, 'self-serving declarations,' and therefore of questionable evidentiary value. With the coming of the recent national emergency it became clear that more rigorous safeguards were necessary for delayed birth registration if the system was not to be thrown into discredit."

A certificate of birth registration from a health department based upon facts recorded with the department at the time of birth constitutes, of course, the most acceptable evidence of the facts of birth. **Unless a birth was recorded at the time of its occurrence or shortly afterwards, health departments are not permitted under present laws to issue certificates regarding the facts of a birth.** Rule No. 1 (a) of the General Rules of the Indiana State Board of Health is very specific regarding this point.

"All health officers shall be allowed to issue birth certificates of births which were properly recorded at the time originally filed in their office by the doctor or midwife, or persons delivering the child, and that they shall not issue certificates which are procured in any other manner or are delayed more than one year after date of the birth of the child. Violation of this rule shall be grounds for dismissal from office."

If local birth records show entry of the birth requested, health officers should furnish the applicant with a statement made out on legal form over his signature and seal of office. A suggested form for this statement is reproduced in the following section entitled "Supplies Needed by Local Health Officers for the Collection of Vital Statistics." Do not use a standard certificate of birth form or any other form of the State Board of Health for this purpose. This is necessary to prevent confusion with the original official certificate on file with the State Board of Health.

Local health officers are not to accept a "delayed certificate" for recording even though it be signed by the physician who was in attendance, nor are they to accept any sort of affidavit which may be presented, for the purpose of filing in their official birth record book. Under present laws, births cannot be recorded in the official birth record book later than one year after occurrence.

Many health officers have been known in the past to fill in their records by inserting a first name where it was omitted, or by correcting the spelling, the order of names, or by inserting the father's name

where a marriage occurred after the birth of a child. This practice is absolutely contrary to the laws of the state, and health officers should suggest to applicants that they attach other evidence to the certificate in order to show omitted or corrected facts. A suggested form for this purpose can be found in the following section entitled "Supplies Needed by Local Health Officers for the Collection of Vital Statistics."

There are many instances where births have not been recorded locally, particularly births occurring twenty or more years ago. In such instances, if the applicants are now living in Indiana they should be referred to the County Clerk where it is possible to have the time and place of their birth judicially determined under the provisions of Chapter 24 of the Acts of 1941.<sup>1</sup> Unfortunately there is no legal provision for establishment of time and place of birth for persons born in Indiana but not registered, if they are not now residing in the state. In those instances in which the applicant does not wish to, or cannot legally, have the time and place of birth judicially determined, it is suggested that where citizenship only is required to be established in lieu of a birth certificate, the following papers, in order of their value, may be considered as good evidence of citizenship by potential employers: baptismal records, cradle roll record, or other church record; family Bible record; physician or hospital record; birth certificate of the registrant's child (indicating age of parent); record from a local, state or federal census; school record; insurance policy; other acceptable records or affidavits.

### *Supplies Needed by Local Health Officers for the Collection of Vital Statistics*

office supplies and records. The present record books can be obtained through the printing company furnishing county office supplies. If such companies are not familiar with the latest prescribed forms, which were revised in 1939, they can obtain this information by writing the Indiana State Board of Health.

It is also probable that local printing companies can furnish information concerning the availability of the various records and forms.

The following blanks are obtainable from the State Board of Health:

1. death certificates
2. coroner's death certificates
3. birth certificates
4. supplemental birth reports
5. burial-transit permits
6. return envelopes
7. monthly statement cards
8. application for permission to disinter and remove buried bodies.

<sup>1</sup> Appendix, page 100.

Because of the increased demand for evidence of birth registration, it has become necessary for most local health departments to devise a form satisfactory for this purpose. In order to encourage accuracy and uniformity in the issuing of this legal document, the State Board of Health has recommended the following simple form to be used for this purpose.

**Local Record of Birth**

..... **COUNTY DEPARTMENT OF HEALTH**

....., Indiana

**THIS IS TO CERTIFY**, that our records show

....., was born in.....,

Name of Child

Indiana, on.....

Month Day Year

Name of Father

Maiden Name of Mother

Birthplace of Father

Birthplace of Mother

Recorded locally in book No. ...., Page No. ....

.....  
Date Record was Filed

Signed.....

County Health Officer

**SEAL**

.....  
Address

.....  
Date

These forms should be obtained locally. It should be noted that the form is entitled "Local Record of Birth" in order to prevent confusing it with the official birth certificate sent in to the State Board of Health at the time of birth. The official birth certificate form should never be used to supply an individual with a statement certifying that his birth has not been recorded locally.

In cases where error exists in the local record of birth, such as omission of the first name, incorrect spelling, erroneous dates, etc., and in cases where the records are incomplete, it is suggested that the following form accompany the certificate of birth registration.

## NOTICE

We are enclosing a copy of the record of your birth as it is recorded in this office. Many of these records are incomplete, or contain dates which are in error, or names which are incorrect, or incomplete, or incorrectly spelled. We are not allowed to enter any changes whatsoever in the records as they stand, if more than one year has elapsed since birth.

If some of these faults are in evidence in your birth record, our State Department has authorized us to recommend that you prepare an affidavit to show the necessary corrections, or additions, with the help of a lawyer or Notary Public; have the affidavit notarized, and attached to this copy of your birth record.

Certain states, such as Michigan, have made it possible for citizens of the state, but born outside of it, to establish a record of their birth by delayed registration. However before establishing such a record they require that a written statement of the fact that no record exists in the state or county of their birth, in order to avoid duplication of any existing record. In receiving such requests from other states, all health officers should bear in mind that this service is one of their duties as guardian of local birth records. The following form is recommended to health officers for the purpose of simplifying this procedure as much as possible.

### *Search Record*

..... COUNTY (or City) DEPARTMENT  
OF HEALTH

....., Indiana

This is to certify that a search of our birth records fails to reveal any record of the birth of .....

Signed ....., M.D.

County (or City) Health Officer

SEAL

.....  
Address

.....  
Date

It is suggested that this form be used for all applicants where no local record of birth is found. Such a statement to the applicant will often aid him materially in establishing his citizenship by other means when he is residing outside of Indiana.

INDIANA VITAL STATISTICS

	1941	1940	1939	1938	1937	1936	1935	1934	1933	1932	1931	1930	1929
Total Births	65,681	62,045	58,350	60,208	55,988	53,800	52,799	52,347	50,500	53,073	55,975	59,280	58,828
Rate Per 1,000 Population	19.1	18.1	16.8	17.3	16.1	15.5	16.0	15.9	15.4	16.2	17.2	18.3	18.4
Total Deaths	39,539	40,415	39,512	38,592	40,864	42,308	39,529	40,650	38,032	38,755	38,710	33,297	40,981
Rate Per 1,000 Population	11.2	11.7	11.3	11.1	11.7	12.2	12.0	12.3	11.6	11.8	11.9	12.1	12.3
Infant Deaths	2,615	2,580	2,292	2,551	2,763	2,730	2,691	2,955	2,675	2,900	3,214	3,404	3,749
Per 1,000 Births	39.7	41.6	39.2	42.7	49.3	50.7	51.4	56.4	52.9	54.6	57.4	57.4	63.6
Maternal Death Rate	2.6	2.5	3.6	3.7	3.4	4.5	4.9	5.3	5.4	4.9	5.6	5.5	6.8
<b>Important Causes</b>													
Tuberculosis	1,343	1,412	1,380	1,648	1,694	1,657	1,788	1,863	1,964	1,980	2,136	2,321	
Typhoid Fever	20	28	39	29	40	61	63	104	95	86	98	107	118
Diphtheria	32	34	56	84	58	101	138	120	148	172	137	137	158
Scarlet Fever	23	41	51	69	106	117	116	121	86	88	119	72	106
Measles	56	4	7	107	-	15	5	102	225	13	17	156	62
Whooping Cough	50	78	67	49	160	58	139	189	70	182	146	101	181
Pneumonia	1,776	2,082	2,452	2,472	3,304	3,499	3,074	2,831	2,263	2,869	2,797	2,818	3,284
Diarrhoea—Under 2 Yrs.	227	125	195	305	313	324	223	107	369	394	453	614	563
Cerebro-Spinal Fever	15	21	13	25	58	73	87	21	49	129	183	271	89
Poliomyelitis	17	76	4	12	27	16	9	22	11	8	19	26	11
Influenza	717	790	926	447	1,174	1,023	884	743	1,020	1,443	1,111	684	1,974
Total Puerperal	179	156	211	222	191	247	261	280	277	264	315	330	405
Cancer	4,409	4,344	3,984	3,997	3,860	3,894	3,907	3,813	3,594	3,626	3,418	3,399	3,370
Homicidal	99	107	126	153	155	176	155	229	183	217	210	213	213
Suicidal	554	577	575	581	590	480	524	605	689	646	668	649	524
Total Accidental	3,348	2,986	2,621	2,665	3,175	3,653	2,755	3,104	2,713	2,414	2,782	2,660	2,653
By Automobile	1,517	1,215	1,056	1,124	1,429	1,349	1,196	1,227	1,103	989	1,192	1,146	1,054
Smallpox	2	0	8	3	3	0	0	1	1	2	8	18	14

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Syphilis.....	399	383	241	237	240	225	192	230	239	218	185	203	185
Diabetes.....	514	525	582	570	525	594	548	617	499	532	555	521	490
Bright's Disease.....	2,411	2,345	2,283	2,285	2,234	2,566	2,350	2,552	2,496	2,399	2,461	2,606	2,519
Organic Heart Disease.....	9,722	10,814	8,870	8,420	8,823	9,586	8,960	8,982	6,077	6,102	5,728	6,160	6,208
Apoplex.....	4,934	5,018	4,706	4,333	4,222	4,622	4,226	4,191	3,629	3,738	3,610	3,621	3,632
Alcoholism.....	62	51	70	81	85	118	108	134	121	94	116	130	143
Malaria.....	6	12	8	9	21	10	7	17	24	7	7	14	14
Tetanus.....	14	19	24	18	26	21	19	28	32	31	29	45	41
Hydrophobia.....	0	0	2	2	1	3	2	2	1	4	4	1	5
Tularemia.....	19	12	9	7	1	0	5	6	2				
Undulant Fever.....	3	3	3	4	3	11	5	7	6				
Rocky Mt. Spotted Fever.....	5												
Pellagra.....	12												

#### DEATH RATE PER 100,000 POPULATION

Tuberculosis.....	37.6	39.1	40.7	39.8	47.4	48.7	47.6	54.2	56.9	59.9	61.1	65.9	72.8
Typhoid Fever.....	.5	.8	1.0	.9	1.1	1.8	1.9	3.1	2.9	2.6	2.9	3.3	3.7
Puerperal Causes.....	5.2	4.5	6.0	6.4	5.5	6.9	7.9	8.4	8.4	8.1	9.6	10.1	12.6
Cancer.....	128.2	126.7	115.0	115.2	111.3	112.5	117.7	115.7	109.7	110.8	106.1	104.6	105.3
Heart Disease.....	283.0	315.4	256.3	243.2	254.4	277.1	270.3	271.2	185.8	183.2	176.8	190.0	194.0
Apoplex.....	142.5	146.3	135.8	125.1	124.6	133.3	128.3	127.2	110.8	114.1	111.2	111.6	113.5
Bright's Disease.....	70.1	68.4	65.8	65.7	64.4	73.8	71.3	77.4	76.1	73.2	74.8	80.4	78.7
Alcoholism.....	1.7	1.5	2.0	2.3	2.4	3.3	3.2	4.0	3.6	2.9	3.5	3.9	4.4
Infant Diarrhoea.....	6.6	3.6	5.5	8.7	9.0	9.2	6.7	12.2	11.1	12.3	13.9	18.9	14.1
Pneumonia.....	51.5	60.7	70.5	71.3	95.2	101.1	94.4	85.9	69.1	90.6	86.2	86.9	102.6
Influenza.....	20.8	23.0	26.6	12.8	33.8	29.4	26.8	22.5	31.1	44.0	35.0	21.0	61.5
Diphtheria.....	.9	1.0	1.5	2.4	1.6	2.9	4.1	3.6	4.5	5.2	4.1	4.1	4.8
Scarlet Fever.....	.7	1.1	1.4	1.9	3.0	3.3	3.4	3.6	2.7	2.7	3.6	2.1	3.2



PART III

*Communicable Disease Control*



## Part III

### COMMUNICABLE DISEASE CONTROL

#### *General Information*

The responsibility of local health officers in connection with the control of communicable diseases is undoubtedly their most important function. When carefully analyzed, it is apparent that all of the activities in the field of environmental sanitation, including the protection of water supplies, milk supplies, food supplies, the problem of housing, mosquito control, nuisance abatement, etc., are all pointed toward preventing the spread of disease. The significance of this function of the local health department is tremendously increased during this emergency period. Therefore it is imperative that every possible precaution be taken against the inception and spread of communicable diseases, and furthermore that the local health officer assume the leadership in this specific function in his area of jurisdiction.

The term "communicable disease control" ordinarily implies the restriction of communicable diseases and the prevention of epidemic manifestations. Efforts to control communicable disease should be planned around two outstanding criteria: (a) the extent of morbidity and mortality caused by the disease or its prevalence, and (b) the potentialities of present-day knowledge for controlling the disease.

The incidence of communicable disease is fundamentally dependent on two major factors, namely, exposure and susceptibility. Obviously a communicable disease cannot exist without both a susceptible individual and a successful exposure. Any control effort therefore must be pointed toward influencing one or both of these factors—attempts to make exposure less possible or to render the individual and community less susceptible, or both. In some diseases, one approach is more effective than the other. For example, in the case of diphtheria, susceptibility can be minimized materially by immunization and therefore control efforts against this disease are most effective along these lines. However, all possible means to prevent exposure to this disease by controlling the sick individual and the carrier is also important in preventing the spread of the disease because no one method is infallible. In the case of tuberculosis, less can be done to lower one's susceptibility effectively (nourishing food, adequate rest, etc., notwithstanding) but much can be accomplished in preventing exposure. Therefore in controlling a disease such as tuberculosis, efforts must be concentrated on eliminating and reducing exposures. Typhoid fever control is an example in which effective work can be carried out to influence both factors. Good environmental sanitation is undoubtedly of greatest importance in preventing typhoid fever, but immunization has also played its role in reducing the susceptibility of the individual and thereby reducing the incidence of the disease.

#### *Legal Authority*

Adequate legal provisions exist in the statutes of Indiana for the local health officer to discharge his duties in the control of communicable diseases. Most of the basic pro-

visions for his authority in this function are found in the following three statutes, which are reproduced in the appendix for this manual: Vital Statistics Law,<sup>1</sup> Chapter 239 of the Acts of 1913; Quarantine Law,<sup>2</sup> Chapter 83, Acts of 1903; and the Anti-Tuberculosis Law,<sup>3</sup> Chapter 6 of the Acts of 1917. Clarification of the provisions of these statutes is made in the General Rules of the State Board of Health. These Rules of the State Board of Health have been upheld by the Courts when contested. Further reference is made to these Rules of the State Board of Health in subsequent paragraphs.

## *Reporting of Communicable Diseases*

Rules No. 6, No. 10 and No. 17.

**Rule 6. Communicable Disease**—Weekly summary report cards and disease record cards with envelopes for communicable disease statistics are supplied by the United States Public Health Service with the franking privilege, through the Indiana State Board of Health, to all health officers. Communicable disease record books shall be purchased by local boards of health as other supplies are purchased.

All county, city and town health officers shall immediately copy into their communicable disease record books, all reports of

Anthrax	Hookworm	Rabies
Chancroid	Influenza	(in animals)
Chickenpox	Leprosy	Scarlet Fever
Cerebrospinal Meningitis	Malaria	Septic Sore Throat
Diphtheria	Measles	Smallpox
Encephalitis	Mumps	Syphilis
Lethargica	Ophthalmia	Trachoma
Endameba Histolytica	Neonatorum	Trench Mouth
Erysipelas	Pellagra	Tuberculosis
Glanders	Pneumonia	Tularemia
Gonorrhea	Poliomyelitis	Typhoid Fever
	Rabies	Undulant Fever
	(in humans)	Whooping Cough

Each Saturday a summary of the communicable disease reports received by county, city, and town health officers during the previous seven days shall be sent to the Indiana State Board of Health along with the weekly summary card giving the number of each communicable disease known to the health officer to be present within his jurisdiction. The weekly summary card must be sent to the Indiana State Board of Health by the county, city and town health officer even if there are no cases of communicable disease to report, stating this fact.

**Rule 10. Reportable Diseases**—The diseases which shall be immediately reported to the health officer having jurisdiction are hereby declared to be:

Anthrax	Cerebrospinal Meningitis	Trachoma
Chickenpox	Mumps	Tuberculosis
Diphtheria	Ophthalmia	Typhoid Fever
German Measles	Neonatorum	Whooping Cough
Glanders	Poliomyelitis	Tularemia
Hydrophobia	Pneumonia	Undulant Fever
Influenza	Scarlet Fever	Malaria
Lethargic-Encephalitis	Smallpox	Bacillary Dysentery
Measles	Tetanus	

The diseases which shall be reported direct to the State Board of Health are hereby declared to be:

Gonorrhea	Botulinus	Yellow Fever
Chancroid	Undulant Fever	Malaria
Syphilis	Asiatic Cholera	Vincent's Angina
Leprosy	Bubonic Plague	"(trench mouth)
	Typhus Fever	

<sup>1</sup> Appendix, page 98.

<sup>2</sup> Appendix, page 101.

<sup>3</sup> Appendix, page 104.

**Rule 17. Venereal Disease**—It shall be the duty of every physician in the State of Indiana, to report forthwith in writing, to the State Board of Health on blanks furnished by said Board of Health, the name, address, age, sex, color, marital state, occupation, name of disease and such other related statistical facts as may be required, of every person coming under his examination or care having the following infectious diseases, to wit: Gonorrhea, chancroid, syphilis. All such reports shall be confidential and shall not be inspected by any person other than the official custodian of such reports in the State Board of Health, the members of the State Board of Health, and such other persons as may be authorized by the State Health Commissioner to inspect such reports, nor shall any official having access to such reports, disclose the name or identity of any person named therein except as may be required by the courts.

Whenever a physician shall report in writing to the State Board of Health that a person having gonorrhea, chancroid or syphilis in an infectious state, whom he has treated or examined cannot properly and sufficiently be treated at home, he shall communicate such fact to the State Board of Health and make such recommendations as he may deem proper; and when it is possible and in the judgment of the State Health Commissioner it is advisable, the said reported person shall be quarantined and treatment given until such time as the patient may be no longer infectious.

### *Quarantine and Isolation*

Instructions for the quarantine and isolation of specific diseases are found in the accompanying booklet, entitled "Indiana Rules and Regulations Governing Quarantine and Isolation in Communicable Disease—Governing Morbidity Reports." This booklet also contains other related information.

Additional copies of this booklet are available from the State Board of Health, and health officers are recommended to distribute this booklet to all practicing physicians within their health jurisdiction, to be used as a reference.

### *Diagnostic Assistance*

**LABORATORY FACILITIES**—The Laboratory of Hygiene, a Division of the State Board of Health, serves the people without charge.

The Laboratory must be conducted according to the provisions of law and therefore no laboratory work will be done that is not exclusively and entirely for the public benefit. Specimens and samples must be submitted to the Laboratory according to the Rules, and if these Rules are not strictly followed examination will not be made.

**SPECIMEN CONTAINERS**—Health officers and state institutions will be supplied with outfits and containers, and directions for collecting specimens, such as sputum, blood, cultures, feces, etc., upon application. Health officers and state institutions will also be supplied with containers for samples of water, milk, food, and drugs upon application. All specimens and samples should be submitted to the Laboratory in State Board of Health Containers. No specimens or samples will be analyzed by the Laboratory other than those submitted in State Board of Health containers, except under extenuating circumstances and after special permission has been granted.

It is suggested that those health officers whose areas of jurisdiction are included in the district health departments obtain such speci-

men containers along with other supplies available from the State Board of Health through the district offices.

MAILING CHARGES—Listed below is the cost of sending by parcel post various quantities of the different containers which should be kept stocked. According to Rule LB-2, health officers should keep all types of approved containers for distribution to physicians of their communities.

Wasserman, G. C. Agglutination	Number of containers	6	12	24	32
	Rate	.10	.11	.12	.13
Sputum containers for tuberculosis	Number of containers	10	14	20	28
	Rate	.12	.14	.16	.19
Feces and Urine con- tainers for Typhoid Carriers	Number of containers	1 set		8 sets	
		.08		.12	
(Set includes 2 bottles, 1 for urine and 1 for feces)					
Diphtheria, regular single containers	Number of containers	12	25	50	
	Rate	.10	.12	.16	

Unless the amount required in stamps is sent with the requisition, the shipment will be made express-collect. Since parcel post is much cheaper and delivery much more satisfactory, health officers should be sure to include sufficient postage so that the order may be sent parcel post.

EPIDEMIOLOGICAL CONSULTATION—The State Board of Health also has available epidemiological consultant service to the local health officers. This service includes advice on medical, nursing and environmental sanitation problems. Health officers should feel free to call for this service in cases of emergency.

**Available Biologics** According to the provisions of Chapter 33, Acts of 1939<sup>1</sup>, "the State Board of Health is authorized to purchase and to distribute and make available free to persons too poor to pay for it themselves, in accordance with the rules of said State Board of Health, anti-pneumococcic serum, diphtheria toxoid, smallpox virus and typhoid bacterins."

IMMUNIZING MATERIALS—The following materials are dispensed free upon written request (on prescribed form) to city and county health officers for immunization programs of indigent and low-income groups: Alum precipitated diphtheria toxoid, plain; alum precipitated diphtheria toxoid and tetanus combined; fluid diphtheria toxoid; smallpox vaccine; typhoid fever vaccine, and Schick testing material.

<sup>1</sup> Appendix, page 105.

The combined diphtheria-tetanus alum precipitated toxoid should be given in 1 cc. doses (2 doses), while the plain alum precipitated toxoid is given in  $\frac{1}{2}$  cc. doses (3 doses) at intervals of not less than four weeks.

Health officers whose jurisdictions are not contained in any of the district health departments of the State Board of Health should send their requisitions for these biologicals (on prescribed form) to the Bureau of Maternal and Child Health of the Indiana State Board of Health, specifying the exact type of material to be used. Health officers whose jurisdictions are in the counties included in any of the eight district health departments may make their request for biologicals to the district health department serving their particular area.

The district health departments will either furnish this immunizing material immediately or requisition it directly from the State Board of Health. The personnel of the district health departments are also prepared to assist in the planning of any local immunization program.

**ANTI-PNEUMOCOCCIC SERUM**—This material is available to all physicians on request on prescribed form, directly from the State Board of Health. Telephone and telegraphic requests will be filled.

### *Procedure for Obtaining Diphtheria, Scarlet Fever and Tetanus Antitoxin and Anti-rabic Virus for People too Poor to Purchase Same*

259 of the Acts of 1935.<sup>1</sup> The apparent intent of the statute was to make easily and quickly available these costly therapeutic agents for those people who are unfortunately unable to provide them for themselves. The decision as to the eligibility of a family for this public assistance is left up to the judgment of the physician treating the family.

Any physician wishing to obtain immediately the above-mentioned therapeutic agents (namely diphtheria, scarlet fever and tetanus antitoxin or anti-rabic virus) should obtain what is known as a "free antitoxin vaccine blank" from the township trustee or local health officer in whose jurisdiction he resides. These antitoxin and vaccine blanks should be obtained by all local health officers from the State Board of Health. Upon receipt of this official antitoxin and vaccine blank properly filled out and signed in ink by a physician, any dealer may supply the antitoxin or anti-rabic virus called for in said blank and the blank shall be a legal claim for the market price of the antitoxin or virus furnished against the county or city in which the patient resides. The act specifically states that the cost which may be incurred in furnishing any such antitoxin or virus shall be paid by the county or city in which the patient resides.

The detachable and self-addressed section of the antitoxin and vaccine blank is to be forwarded to the Indiana State Board of Health when the bill for antitoxin or vaccine is paid.

A considerable amount of confusion in the interpretation of the above procedure has persisted in the minds of the general public, the medical profession and the health authorities responsible for supplying the material. This procedure is provided for by statute, which is found in Chapter

<sup>1</sup> Appendix, page 105.

A copy of the statute and full instructions are contained on each antitoxin and vaccine blank.

**Immunization** Immunization is recognized as an important instrument for the control of certain communicable diseases. The State Board of Health recommends that all local health officers encourage and promote widespread protection of all children by immunization against diphtheria and smallpox. Special emphasis should be given to this protective measure in preschool children. The value of immunization against other diseases, such as whooping cough, scarlet fever, tetanus, etc., is recognized by the State Board of Health, but it is felt that the judgment of individualization is preferable to generalization regarding these immunizations.

As to the desirability of widespread typhoid fever immunization, as an emergency measure, it is felt that no general statement can be made. In cases where there is question regarding the need for widespread typhoid fever immunization, the consultant service of the State Epidemiologist is readily available and should be utilized.

**Tuberculosis Control** The most fundamental factor in controlling the spread of tuberculosis is identification and isolation of the case and carrier. A rough estimate of the number of active cases of tuberculosis existing in a population can be made by multiplying the number of deaths from all forms occurring in one year by six. Since there were 1,293 tuberculosis deaths in Indiana during the last year, this would indicate that there are probably more than 7,500 active cases of tuberculosis in the state at this time. In view of the fact that there were only 1,348 cases reported to the State Board of Health during 1941, it is apparent that a great deal of case finding yet remains to be done.

The legal requirement for reporting of tuberculosis cases is specific in the Anti-Tuberculosis Law.<sup>1</sup> Health officers can do a great deal to encourage better reporting by supplying all physicians in their health jurisdiction with case report cards.

The Selective Service physical examinations have uncovered numerous cases of tuberculosis previously unknown. Every local health department should utilize this valuable diagnostic information by following up newly diagnosed cases and providing for their isolation, treatment and rehabilitation. Contacts of these newly diagnosed cases should also be examined. The State Board of Health has received excellent co-operation from the Army and Navy Examining Boards and all cases reported to the State Board of Health by them have been referred to the local health authorities for follow-up. This plan will be continued and local health departments are urged to use all their resources in following up these cases.

It is suggested that all local health officers utilize the available services and resources of their local tuberculosis societies in their tuberculosis control work.

The following recent opinion by the Attorney General regarding quarantine for tuberculosis further indicates the authority and re-

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<sup>1</sup> Appendix, page 104.

sponsibility of health officers in the isolation of open cases of tuberculosis:

**State of Indiana**  
**DIVISION OF ATTORNEY GENERAL**  
**Department of Law**

Board

Administrative Officer

March 25, 1941

Governor Henry F. Schricker  
George N. Beamer, Attorney General  
Richard T. James, State Auditor  
John W. Ferree, M. D.  
State Health Commissioner  
Indiana State Board of Health  
Indianapolis, Indiana

George N. Beamer  
Attorney General

Dear Sir:

I have your request of February 11, 1941, for my official opinion as to the application of the quarantine laws of this State to careless tuberculosis patients.

The question submitted involves, in the first place, an interpretation of an act entitled "An Act to provide for the restriction of dangerous communicable diseases, prescribing penalties for violation thereof, repealing all laws and parts of laws in conflict therewith and declaring an emergency," in force March 4, 1903, Chapter 83, Acts 1903.

Section 2 of this act provides for the giving of notice to the proper official in case of any person found to be suffering from "smallpox, diphtheria, membranous croup, scarlet fever, measles or **any other communicable disease listed in the rules and regulations of the State Board of Health.**"

It is evident from the title of this act and of Section 2 thereof that unless tuberculosis is included in the list of communicable diseases covered by the rules of the State Board of Health and has not been subsequently declared to be a communicable disease, it is not subject to the quarantine laws as provided in this act. It is not specifically mentioned in Section 2 of this act but said section is not to be understood as removing from the category of communicable diseases, diseases not therein enumerated which are in fact communicable. It is moreover one of the principal and most necessary functions of the State Board of Health to prevent the spread of contagious, infectious and communicable diseases and it is my opinion that the word "communicable," as used in the title and body of this act, is sufficiently broad to cover also infectious and contagious diseases.

It was, therefore, proper, even essential, that the State Board of Health be vested with authority to determine and establish by its rules and regulations, what are communicable diseases.

The act itself fails to specify tuberculosis as a communicable disease. It may not at that time have been ascertained to be a communicable disease. So that if it is so to be classified authority therefor must be found in other laws or decisions or the rules and regulations of the State Board of Health itself. With the latter I have not been favored and so am in no position to pass upon that phase of the question, other than to say that if it is so classified then it is my opinion that the quarantine laws of the State are applicable thereto.

Section 1 of Chapter 149, Acts of 1917, an act entitled "An Act for the prevention and control of tuberculosis in the State of Indiana," in force May 31, 1917; specifically declares tuberculosis to be an infectious, communicable and dangerous disease. Because the Act of 1903, supra, failed to list tuberculosis as a dangerous, communicable disease subject to the quarantine laws of the State, is no reason why the Legislature cannot so declare it at a later date. If the disease com-

monly diagnosed as tuberculosis is ascertained to be communicable at any subsequent date, then the fact is that it must always have been so and the declaration thereof at any subsequent time by the Legislature can only be taken and construed as the declaration of a fact past existing and in no way changing or affecting existing rights.

The Act of 1903, supra, must, moreover, be construed as prospective. It operates in the future. It has never been repealed or amended. It purports to and has for its purpose the prevention of the spread of all communicable diseases as evidenced by the provision of Section 1 of the latter act wherein it is stated that any attending physician "who finds the cause of such sickness to be of a contagious or infectious character shall, etc." This language is broad and comprehensive and certainly was designed to and does include all diseases of the character here under discussion. And that the enumeration of the diseases classified as communicable in Section 2 of that act was not to be construed as a limitation is apparent in view of the fact that the Board of Health is vested with authority to find and list communicable diseases in its rules and regulations, which would mean a finding and listing of such diseases by the Board of Health at some future date.

Accordingly it is my opinion that the Act of 1903, supra, is authority for the application of the quarantine rules and laws of this State to tuberculosis patients even though the disease of tuberculosis may not at the time of the effective date of the law of 1903 have been recognized as such, that fact having been ascertained and declared at a date subsequent thereto.

Yours very truly,  
(Signed)      GEORGE N. BEAMER  
JOH:TF/mns      Attorney General of Indiana.  
3/26/42

The recent legislation, requiring all school employees to have a physical examination for tuberculosis<sup>1</sup> is of considerable significance in the problem of tuberculosis control.

### *Venereal Disease Control*

The communicability of infectious venereal disease is controlled by treating the active cases.

This requires two fundamental epidemiological steps—case finding and case holding. No program to control venereal disease can be complete without both of these activities. The limitations of local health officers to carry on these activities out of their limited budgets have been recognized by the State Board of Health and funds have been made available to both city and county health departments for the establishment of clinics. There are at present over thirty-six venereal disease clinics in operation in the state, and they have furnished a great contribution to the further control of venereal diseases. Local health officers should communicate with the State Board of Health for further information regarding assistance in the establishment of such clinics.

A booklet entitled "Indiana's War Time Program Against Venereal Diseases" has recently been released by the State Board of Health for the purpose of assisting local communities in developing a rigorous legal repressive program against prostitution in order to prevent the spread of venereal diseases. This booklet has been distributed to all local health officers and law enforcement agencies, and contains valuable information regarding this subject.

<sup>1</sup> Appendix, page 107.

PART IV

*Emergency Sanitation*

## INTRODUCTORY REMARKS

Part IV has been prepared by the Division of Environmental Sanitation of the State Board of Health. As mentioned in the Foreword to the Manual, it has been written to furnish information and specific instructions on how to handle sanitation problems arising out of potential major disasters. Such an emergency might result from flood, windstorm, or sabotage, as well as combat activities. In such an event, the local health official in charge must be able to cope with any of the circumstances which may confront him regarding the protection of the health of the civilians involved. By health officials is meant those officials who may already be present or who may be sent into an emergency area for the purpose of taking command or assisting in those measures affecting environmental sanitation. This includes health officers; water, sewage, and public works officials; sanitary engineers; doctors; nurses; etc.

Part IV deals specifically with the effect of disaster on environmental sanitation; that is, water supply, waste disposal, housing, food, and milk. It should be understood that the subjects covered herein are not complete in minute detail but rather are outlined in a general manner. Since it is intended for these instructions to serve mainly in the field, it was not deemed necessary to include a bibliography or references to literature. Furthermore it should be understood that in the space allotted a set policy could not be outlined for handling each and every item which may be involved. Rather, it is more important that good public health policies be kept in mind at all times and it should be remembered that the personnel of the Central and District Offices of the State Board of Health is available for specific information. It is hoped that these instructions will also be beneficial in normal times as many of the measures recommended herein are no different than those recommended in everyday good practice.

## Section I

### ENVIRONMENTAL SANITATION DURING AN EMERGENCY

Environmental sanitation deals with the control of water supplies, sewage, garbage and refuse, housing, food, and milk. Activities in this entire field involve civilian protection as differentiated from civilian participation. When considering emergency sanitation such activities can be divided into two classes—activities planned prior to an emergency to be put into effect at the time the emergency arises, and activities during and immediately following an emergency. The duties and responsibilities of health officials differ materially depending on the stage of the emergency. By and large the activities of normal times are merely accentuated during the period preceding an emergency. Once disaster strikes the problem becomes materially different. The goal is the same during both periods; namely, to prevent disease which may be occasioned by a faulty environment and to see that morale is not damaged by the breakdown of an essential service.

Regardless of the state of an emergency, certain plans should be made which should include the following:

- (1) Provisions for obtaining, treating, and distributing water should the existing public water supply system go out of service.
- (2) Provisions for the disposal of human excreta in the event the existing sewer system fails.
- (3) Provisions for the disposal of garbage, refuse, and dead animals if established collection service is disrupted.
- (4) Provisions for housing should a large number of people be forced from their homes, or should a community be faced with a refugee problem.
- (5) Provisions for obtaining and distributing safe food and milk should the supply of such commodities be subjected to contamination or in any way be diminished.
- (6) Provisions for the restoration to normality with the least amount of delay.

In none of the above fields should the health official assume responsibility for the physical work involved since this is the responsibility of other duly constituted agencies. However, it is the responsibility of the health official to see that nothing is done in the above fields which will jeopardize the health of the people. It is important for the health official to observe certain policies or organization on the initial entry into a field of operation. The extent of the damage should first be estimated and reported to the Central Office of the State Board of

Health, in order that sufficient help may be provided. It is of utmost importance that the Central Office be notified as soon as possible so that the emergency can be controlled on a state-wide basis. This notification should also include the address and telephone number of the health official in charge. If the health official in charge is not a local official, a cooperative arrangement should be effected immediately with the local health officer, police, and other local agencies. This cooperation should include subordination of activities to the local supervising officials. A cooperative arrangement should also be effected with such State or Federal agencies whose personnel is engaged in comparable work.

## Section II

### EMERGENCY WATER SUPPLY

Often in an emergency the public water supply may be put out of service. When this happens emergency auxiliary supplies (private industrial wells, etc.) sometimes can be used to maintain pressure on the system. However, this too is often impossible and water must be hauled. Hauling water is fairly safe provided the proper precautions are taken, but is very dangerous otherwise. Hauling water in large quantities is usually accomplished through the use of milk cans and miscellaneous small containers, tank trucks (milk, gasoline, and oil tank trucks), and railroad cars (gasoline and oil tank cars, milk tank cars, and chemical tank cars).

Before these containers can be used they must be cleaned thoroughly and sterilized, for if the water has any unusual taste or odor, or is unsafe bacteriologically or chemically, the results are the same or worse than if the water had not been obtained at all. After the containers have been cleaned and sterilized a great deal of care should be exercised to be sure that they remain clean as long as they are to be used in hauling water. The containers or tanks should be kept closed at all times except when necessary to fill or empty. Dust and dirt blown by wind can carry material which may make the water non-potable. All hoses, buckets, or other appurtenances used in loading or unloading should be cleaned and sterilized. The ends of hoses should be capped to prevent dust and dirt from entering and great care should be taken to see that the hose is not allowed to lie on the ground.

#### CLEANING CONTAINERS

**Milk Cans, Milk Trucks, Milk Tank Cars.**—First scrub and clean thoroughly with strong caustic soda solution or other satisfactory cleaning compound. Rinse thoroughly and fill container with water, adding a sufficient amount of chlorine solution to obtain a chlorine residual of 50 p.p.m. (See Table II). Agitate and allow to stand for 10 to 15 minutes. Rinse by filling with satisfactory water and empty.

**Gasoline Trucks and Tank Cars.**—To clean ethyl and other leaded gasoline containers fill the tank full of acetone or white gasoline (non-leaded), allow to stand several minutes, and drain. Next steam with 10 to 15 pounds steam pressure or with high pressure (Jenny) steam jet. (The Jenny steam jet is the type normally used in cleaning buildings.) Finally, rinse by filling tank with water and adding enough chlorine solution to give a residual of 50 p.p.m. (See Table II). Agitate for 5 to 10 minutes by shifting car or truck back and forth and drain.

An alternate procedure which can be used in cleaning ethyl and other leaded gasoline containers is to first sand blast thoroughly. Then scrub tank with a strong caustic soda solution and rinse by filling tank with water, adding enough chlorine solution to give a residual of 50

p.p.m. (See Table II). Agitate for 5 to 10 minutes by shifting car or truck back and forth, drain, and re-rinse with satisfactory water.

**Crude Oil Containers.**—First steam with 10 to 15 pounds steam pressure or with high pressure (Jenny) steam jet. (The Jenny steam jet is the type normally used in cleaning buildings.) Next rinse by filling tank with water, adding enough chlorine solution to give a residual of 50 p.p.m. (See Table II). Agitate for 5 to 10 minutes by shifting car or truck back and forth, drain, and re-rinse with satisfactory water.

**Alcohol or Sulphuric Acid Cars.**—Follow the same procedure as outlined for crude oil containers.

### STERILIZATION OF WATER

Usually it is not possible in the case of an emergency to secure absolutely safe drinking water. If this be the case, the water should be sterilized before drinking. One method of sterilizing water is to boil it at least 10 minutes. Aeration of the water by pouring it through the air from one receptacle into another will eliminate the flat taste due to boiling. A number of solutions can be used to sterilize water or the containers. Chlorine and chlorine products are most generally used and are nearly always available in some form or another. Some of the chlorine products which can be used in the sterilization of water are: HTH, Perchloron, Chlorox, Zonite, Halazone Tablets, Sterichlor, B. K. powder or liquid, and chloride-of-lime. For directions in preparing chlorine solutions see the next sub-heading and Table II.

Iodine may be employed as a sterilizing agent instead of chlorine. Add two to three drops of U.S.P. tincture of iodine to one quart of water and allow to stand for 30 minutes. Iodine is expensive and the supply would be limited. Also, in the treatment of some waters, iodine is apparently much less effective than chlorine.

In using all but the iodine a chlorine residual test should be run after the water has been allowed to set for 15 minutes and a residual of approximately 0.3 to 0.5 parts per million obtained. If this be the case and the water does not show a residual, the dosing should be repeated. Each dose should be about 2.0 parts per million unless the water contains an excessive amount of organic matter. The residual, not the dose, is the factor which determines the potability of the water. Care should be exercised, however, to see that the chlorine residual is not too strong. Some people cannot drink water which has more than 1.0 part per million chlorine residual without becoming sick. Thus if the residual is too strong people will not drink the treated water but will turn to another source which may be polluted. The dangers of this condition are self-evident.

**Preparation of Chlorine Solution.**—The strength of a chlorine solution is nearly always expressed in parts per million (abbreviated p.p.m.) or in per cent. One percent is equivalent to 10,000 p.p.m. For convenience a formula is given herewith which can be used to calculate the number of pounds of a chlorine compound needed to give a specified dose. This formula is best used for determining dosages for large volumes of water. For small volumes of water see Table II.

$$V \times 8.34 \times A$$
$$\frac{E}{1,000,000 \times C}$$

Legend:  $V$  = Volume of water to be treated in gallons  
 $A$  = Chlorine dosage desired in parts per million  
 $C$  = Per cent of available chlorine in compound  
            (as a decimal)  
 $E$  = Pounds of chlorine compound needed

Note: This formula can also be used for determining the pounds of chlorine gas required for a desired dose in which case  $C$  equals 1.0.

Example: Let us assume that we wish to sterilize a tank with a capacity of 15,000 gallons. To sterilize we need a dose of 50 p.p.m. HT H or Perchloron is to be used, these compounds having an available chlorine content of 70 per cent. Computations are as follows:

$$\frac{15,000 \times 8.34 \times 50}{1,000,000 \times 0.70} = 8.92 \text{ pounds of HT H or Perchloron are needed.}$$

**Reaction Time.**—The benefits of chlorine and other sterilizing agents are obtained chiefly through their oxidizing action. Since oxidation is a chemical reaction, a proper reaction time must be allowed if the desired results are to be obtained. Generally speaking, a reaction time of 15 minutes is ample to allow complete sterilization of the water if the water is clear. If the water is turbid this time should be increased in proportion to the turbidity. At the end of this period the water should have a chlorine residual.

**Chlorine Demand.**—The amount of chlorine needed to completely oxidize the foreign matter in the water is called the *chlorine demand*. This chlorine demand is calculated by subtracting the chlorine residual from the chlorine dosage. In other words, if we add a sufficient amount of chlorine compound to water to give a dose of 1.0 p.p.m. we may find that after setting for 15 minutes the chlorine residual is only 0.6 p.p.m. The chlorine demand then is:

$$1.0 \text{ p.p.m.} - 0.6 \text{ p.p.m.} = 0.4 \text{ p.p.m.}$$

**Chlorine Residual.**—The only quick practical field method of checking the adequacy of sterilization by chlorine is to measure the chlorine residual (the amount of free chlorine which remains in the water after the chlorine demand has been satisfied). There are several ways in which chlorine residual can be measured, but the most practical method for field usage is the colorimetric method using orthotolidine. In this method 1.0 cc. of orthotolidine reagent is added to a 100 cc. sample of the water and the color is allowed to develop for 5 minutes. At the end of this period the color is compared to a set of specially prepared color standards and the residual determined. As a rough quantitative measure it may be considered that 0.5 p.p.m. of residual chlorine will produce a light canary yellow; 1.0 p.p.m. a deep yellow; and 20 to 25

p.p.m. an orange-red color. Various kinds of comparators for measuring the color produced by the orthotolidine reaction have been devised and can be purchased. Often it is not possible to obtain orthotolidine at a chemical supply house. However, usually some local druggist will be able to prepare the solution if given the directions. For these directions see Table IV.

The orthotolidine test is sometimes complicated by the fact that a false color usually develops in the presence of more than 0.01 p.p.m. of manganic manganese, 0.3 p.p.m. of iron, or 0.3 p.p.m. of nitrites. In other words, the test made in the usual manner will indicate a certain residual chlorine to be present when actually the residual is lower or even zero. When interference is encountered, the true residual must be obtained as follows: Obtain two samples from the same source, one which has been chlorinated and one which has not. Add orthotolidine to both samples, let stand for 5 minutes, and read the residuals. The difference in the readings is the true chlorine residual.

#### MINIMUM WATER REQUIREMENTS

In any emergency, whether it be the result of a flood, a windstorm, a fire, or a bombing, water should be conserved for strictly domestic use.

No water should be drawn during an air raid warning, except in the case of an extreme emergency. The water supply must be sparingly used in order that the needs of the firefighting, gas decontamination, hospital, first-aid, and other essential services may be met. This cannot be assured if water consumers do not act reasonably at critical times. If a small proportion of the consumers were to draw water at one time from taps running a full stream or even a small stream, the demand on the water supply would probably be beyond its capacity and serious consequences might result. During an air raid three pints of safe water per person should be kept on hand for drinking purposes. After an air raid, all water drawn from the taps for drinking or cooking should be boiled or disinfected until notice is given that the water is safe.

Whenever it becomes necessary to haul water the minimum per capita daily consumption can be estimated to be 4 or 5 gallons. If the public water supply is still in service but has been reduced considerably, the water should be apportioned accordingly. In these cases the per capita daily consumption may have to be decreased to as low as 20 gallons.

### Section III

## MAINTENANCE OF PUBLIC WATER SUPPLIES

### AUXILIARY SUPPLIES

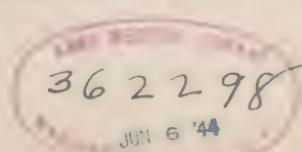
Oftentimes the water supply plant may be put out of service while the remainder of town is still operating. This condition occurred in 1937 during the Ohio River flood, when many water plants (normally located near the river) were flooded out while the town continued to operate. In these cases it becomes necessary to maintain water pressure in the distribution system to provide fire protection as well as for sanitary reasons.

Usually this can be done by using emergency auxiliary supplies. Normally each large town has a number of private wells in its community which are used for industrial purposes. In an emergency these wells can be connected to the distribution system and used. The water-works superintendent usually has a record of the location of such wells. Normally, however, no bacteriological record of the water from these wells exists and therefore, to be on the safe side, it must be assumed that the water is unsafe and must be chlorinated. Even if a good bacteriological record of the water exists it is considered advisable to chlorinate all water pumped from the well if a chlorinator is available.

Other auxiliary supplies which can be used if no wells are available are ponds, lakes, etc. This practice, however, is not advisable and should only be used to maintain water pressure in the distribution system for fire protection. If such an auxiliary supply is not too heavily contaminated the water may be used for sanitary measures provided it is chlorinated heavily and provided water for drinking and cooking is otherwise furnished. In either case the public should be warned that the water is unsafe for drinking or cooking. This is very important. When the supply is returned to normality the entire distribution system should then be sterilized in accordance with the procedure outlined on page 52.

### EMERGENCY CHLORINATION

**Gas Chlorinators.**—Gas chlorinators are machines used to feed chlorine gas to water. If no chlorinators are available at a plant which has gone out of service, they can sometimes be found at swimming pools, industrial plants, or other waterworks in the same area which have duplicate machines. A great deal of care should be exercised in moving these units and they should not be subjected to severe jars or bumps for such handling may injure some part and make the machine useless. Before a chlorinator is disconnected to be moved to another point the supply of gas should be shut off and the chlorinator allowed to operate for a few minutes in order to exhaust as much gas from the machine as possible. No person should attempt to repair a gas chlorinator unless he is familiar with the machine and its parts. While the



machines are fairly simple in construction they must be in adjustment or they will not operate. A little thoughtless tinkering may cause the machine to be out of order until someone can be called in to place the machine in working condition.

In the absence of commercial equipment for the emergency treatment of water supplies with chlorine gas, it is possible to construct homemade equipment. Such equipment cannot be used to inject chlorine into water under pressure. One method is to apply the chlorine gas directly from the cylinder to the water through a diffuser inserted in the water. The cylinder valve can be used to control the rate of flow and the dose may be determined by measuring the loss in weight of the cylinder. A very simple metering device can be constructed with the use of a thick wall, large mouth, glass bottle in which a large rubber stopper is tightly fitted. This stopper should be wired in place. Two small holes should be drilled in the rubber stopper through which two pieces of copper tubing (if available, use silver tubing which is ordinarily used to conduct chlorine gas) may be inserted to make a gas-tight fit. Fill the bottle half full of water and place the end of one tube near the bottom of the bottle and the end of the other tube above the water surface. Connect the submerged tube to the chlorine cylinder and the other tube to the diffuser. The rate of flow of chlorine can then be judged by the number of bubbles rising through the water. This meter would have to be calibrated by observing both the number of bubbles and the loss in weight of the cylinder. Caution should be practiced in the use of this equipment.

**Handling of Chlorine Gas.**—Chlorine gas is dangerous if not handled properly. However, there is no reason to feel unsafe when handling the gas if ordinary precautions are followed. Whenever moving a cylinder the safety shipping cap should always be screwed onto the cylinder. If the top should then be accidentally bumped it will not shear off the control valve and spray chlorine into the room. Cylinders should not be dropped off of trucks, etc. for this may split the cylinder and release the chlorine. Chlorine is heavier than air and will flow along the floor in approximately the same manner as water. If a leak has occurred no one should be allowed to go into pits, etc. without a gas mask. Chlorine is absorbed by water; thus if a room becomes saturated with chlorine gas and sufficient ventilation is not available to clear the room, spray it with water. The chlorine cylinders are fitted with fuse plugs for the release of the gas when the temperature becomes greater than 150° F. It is evident, therefore, that chlorine cylinders should not be placed near steam pipes, radiators, stoves, etc., nor should they be heated to increase the flow of gas from them.

**Hypochlorinators.**—Under emergency conditions hypochlorites are often used because they are a source of chlorine and are usually readily available and easy to feed. When the chlorination must be done under pressure a pump of some kind must be used to force the solution into the main. Normally this is done by using a hypochlorinator. Such equipment is manufactured by a number of companies. These hypochlorinators are simply small pumps with non-corrosive parts. In an emergency any small household pump can be used but great care must be taken to

use a very dilute solution; otherwise the chlorine will corrode the pump and ruin it in a very short time.

Feeding hypochlorites into a vacuum (pump suction, injector throats, etc.) or into a basin, clear well, etc. is very easy and can be accomplished in a number of ways. In Section IX are illustrated several types of emergency hypochlorinators which can be readily set up by using barrels and materials available at any plumbing shop. In a water filtration plant a dry feed machine is often available and can be used to feed dry calcium hypochlorite for a short time. This arrangement cannot be used for any length of time, however, since the hypochlorite is hygroscopic and will clog the machine.

It is recommended that either a 0.5 or 1.0 per cent hypochlorite solution be used with a hypochlorinator. Of course this may be varied as the case may be. Too much reliance should not be placed in home-made equipment. Such equipment should be under careful supervision and the orthotolidine test should be made at frequent intervals.

### REHABILITATION

As soon as possible the public water supply should be restored to normal operation. The extent of the work which must be done depends upon the degree of damage. Very often in the haste to return the water supply to service many things are overlooked which might impair the health of the people. Before service is restored such items as sterilization of wells, sterilization of equipment, and sterilization of mains should receive close attention.

**Sterilization of Wells.**—Wells which have had the seals broken for any reason whatsoever, or which have in any way been exposed to contamination, should be sterilized before being placed back into service. This is accomplished by feeding a strong chlorine solution into the well. Usually this is done by first calculating the volume of the casing and then placing enough hypochlorite into the well to give a resulting strength, when mixed with the water, of 50 p.p.m. available chlorine. (See Table II.) If the hypochlorite is in powder form it should first be mixed into a thin paste and then enough water added to make a gallon. The hypochlorite solution is then poured into the annular space between the casing and the drop pipe. When the entire solution has been poured into the well the pump should be operated intermittently for a few seconds at a time to agitate the water and thoroughly mix the solution in the water. The pump should then be operated until the odor and taste of chlorine is noted in the pump discharge and then shut off. Then let the well set idle for at least six hours and if possible overnight. After the well has been sterilized it should be pumped thoroughly and bacteriological samples taken for confirmation. If it is desired to use the well immediately, all water pumped should be chlorinated until it is known definitely that the sterilization was complete and that the untreated water is satisfactory.

Dug wells which have been subjected to contamination should first be pumped dry, cleaned, and the walls scrubbed down. If it is not possible to pump the well dry, continue pumping until the water becomes clear. Allow the well to fill and if it is not clear pump it out

again. When clear water is obtained, determine the capacity of the well and add enough hypochlorite to the well to give a resulting strength, when mixed with the water, of 50 p.p.m. available chlorine. (See Table II.) Mix the hypochlorite in the well and then follow the same procedure as outlined above for drilled and driven wells. Cisterns should be handled in the same manner as dug wells.

**Sterilization of Equipment, Tanks, Reservoirs, Etc.**—Often the equipment in a water plant including basins, reservoirs, tanks, etc. is subjected to contamination during a plant shut-down. Such structures should be cleaned thoroughly first and then sterilized. This sterilization can be accomplished by spraying or “painting” the inner surface of the structure with a 200 p.p.m. available chlorine solution. (See Table II.) The structure then should not be filled with water until at least 30 minutes have elapsed. Another method which can be used is to calculate first the volume of the structure and then add enough hypochlorite so that after the structure is filled with water the resulting strength will be 50 p.p.m. available chlorine. (See Table II.) Allow the heavily chlorinated water to remain in the structure for at least 6 hours and preferably overnight before replacing with potable water.

**Sterilization of Mains.**—When the pressure fails on a distribution system, it is possible for water from fixtures within buildings to drain or siphon back into the mains subjecting them to contamination. Therefore, if the water supply of a town fails, even for a short time, the mains should be sterilized before being placed back into service. To sterilize the mains it is first necessary to place pressure back on the system; thus, before this work is started, all persons should be notified that pressure is to be placed back on the system and that the water should not be used for drinking or cooking unless boiled. They should also be advised that the strong chlorine solution to be used in sterilizing the mains can be removed by boiling and will cause nausea if consumed without boiling.

If it has been possible for any foreign matter to get into the mains in any way, the mains should be thoroughly flushed before the sterilization is started. The most satisfactory way to sterilize a small system is to add enough hypochlorite to the elevated tank to give a resulting solution of 50 p.p.m. of available chlorine (see Table II) after the tank is filled with water, and then to “pull” this solution through the system by “bleeding” the hydrants at different points. To be effective, however, it is necessary to valve off the system systematically and “pull” the water through certain definite lines. When the residual is obtained at the hydrant it should be closed and the valves changed to pull the solution over a different route. This is repeated until all the mains have been sterilized. In large systems this method is not possible and the chlorine must be applied to the mains at a number of different points through the use of emergency gas chlorinators or pumps which pump the hypochlorite into the system. Here, too, the system must be valved and the system sterilized systematically.

To be effective the solution should be allowed to remain in the mains for at least 6 hours and preferably overnight. The system

should then be flushed thoroughly and samples for bacteriological analyses collected at a number of points to check the effectiveness of the work. If the samples show gross contamination the sterilization should be repeated.

### **WILLFUL CONTAMINATION OF WATER SUPPLIES**

Except for a few scattered hints in field manuals, etc., very little authentic literature is available on the subject of willful contamination of water supplies. Probably this lack of information is due to the fact that this type of war threat to water supplies has been practiced very little. Bombing seems to be more effective and has therefore received more space in the literature. However, the use of poisons was systematically practiced by the German armies in France during World War I. In fact, potassium cyanide was actually detected in a number of instances in water which had been contaminated by Germans in France. Russia, Japan, China, and others have been reported to have practiced poisoning of water supplies at some time or other. Nearly all of these cases dealt with the poisoning of private wells by an army in retreat. It seems that there is no record of an attempt to poison a public water supply by enemy forces or by a saboteur; however, in the time of war, an intelligent defense must include organization against any form of attack. A single large airplane or a fleet of small planes could place tons of material in a reservoir in a single attack. Such a dose could produce a concentration above the toxic limits of many of the available poisons. A reservoir so polluted might have to be emptied at once.

The poisons which are likely to be used by a saboteur or an army are as follows: arsenic, mercury, lead, fluorides, cyanides, strichnine, and nicotine. The average single fatal dose of lead and fluorides is relatively high and the possibilities of their use are slight. All of these are fairly readily available to the general public on account of their cheapness and because they are used in industry, or sold as insecticides in drug stores. All filter plant chemists should familiarize themselves with the details and results of available routine tests for detecting the above mentioned poisons. Complete procedures for performing these routine tests are available in the central office of the State Board of Health or in any standard text on toxicology.

Poisonous gas is not likely to prove very effective against water systems. Mustard gas and Lewisite are the two persistent war gases most likely to be used. Mustard gas is only slightly soluble in water and, being heavier, sinks to the bottom. Insofar as possible, water contaminated with mustard gas should be avoided. Such water, however, might be rendered safe for use by settling, chlorination, and boiling. After being allowed to stand for no less than four hours in a container, the top  $\frac{1}{3}$  should be siphoned off, leaving the lower  $\frac{2}{3}$  in the container which should be discarded. Chloride of lime in the proportion of  $\frac{1}{2}$  pound to 1 gallon of water, or half this amount in the case of high-test hypochlorite, should be added and the water should then be boiled for at least one hour. Boiling will not destroy the effectiveness of Lewisite which on decomposition still yields an arsenical poison. Thus, water so contaminated, should be completely eliminated. Should

public water supplies become contaminated, immediate steps must be taken to warn consumers either to treat all water or not to use it, depending upon what type of gas is suspected.

Another method of willful contamination of water which might be used by an army or a saboteur is "bacterial warfare." Routine sterilization should destroy all such organisms which might be introduced upstream from a water purification plant. There is also the possibility that a saboteur might attempt the injection of cultures of bacteria into mains. Protection against such a possibility can be provided through such means as inoculations against typhoid fever, cholera, etc. Also the number of sampling points and periods should be increased and a higher chlorine residual should be carried in the distribution system.

## Section IV

### EXCRETA DISPOSAL

If, as a result of a bombing, fire, flood, or other catastrophe, a municipality's water supply or distribution system is damaged so as to make it impossible for it to function for several days, one of the most serious consequences would be the inability to use the water-flush toilet facilities. Privies installed over sewer manholes would probably have to be resorted to. The earth pit privy, earth pit latrine, or pail latrine could also be used.

Large cities would suffer more than small ones because of the former's greater dependence on public utilities. The destruction of homes and apartment houses in a section of a city would make it necessary to provide emergency toilet facilities in that section or probably in adjacent sections to serve the homeless persons sheltered there. The use of privies placed over sewer manholes is thought to be the general solution of the emergency excreta disposal problem in such sections. In large buildings or in buildings such as hospitals housing invalids, the pail latrine would be the solution.

In general, facilities should be sufficient to care for 5 to 10 per cent of the population at one time. When an earth pit is filled to within 18 inches of the ground elevation a new pit should be provided and the privy building or latrine located over it. The old pit should be filled with earth. Cleanliness of emergency excreta disposal facilities is of utmost importance. This fact cannot be overemphasized. Experience proves that cleanliness can be insured only by constant policing and assignment of persons to use scrub brushes, soap, and chlorine solutions at regular and frequent intervals.

Local officials should decide what type or types of emergency excreta disposal methods would probably be most satisfactory for their community and make plans for their construction and installation if and when the need arises. Construction of trial units before the emergency arises would save much valuable time and effort and prevent confusion later. All lumber dealers and housing contractors should be familiar with the simple construction details.

**Privy Over Sewer Manhole.** (See Figure VI.)—This type should consist only of a box with seat and lid enclosed in a building about four feet square. The enclosure could be of canvas instead of a wood building. In warm weather, during the fly-breeding season, the seat and lid as well as the box should be made fly-tight. To lessen the possibility of the sewer becoming clogged, this method should not be used on sewers less than 12 inches in diameter. It is desirable to choose manholes that are conveniently located, but the privies should not interfere with traffic in alleys or streets. This method was used in Evansville during the Ohio River flood of 1937.

**Earth Pit Privy.** (See Figure VI.)—This type of privy is still common in small communities and in the slum districts of many cities.

Earth pit privies can be installed on vacant lots or in convenient yards to serve certain buildings, homes, or refugee shelters. This method was used at New Albany during the 1937 Ohio River flood. Separate privies should be provided for each sex and should be plainly marked. They must be located so as not to cause contamination of any water supply. They should be located at least 50 and preferably 100 feet from a private water supply and 200 feet from a public or semi-public supply. The privy should be located on a slope away from the source of supply.

The type of privy recommended by the State Board of Health and the United States Public Health Service has a wood-lined pit 3'-6" square and 5'-0" deep. A concrete sill is placed around the pit on the undisturbed earth and the 4'-0" square reinforced floor slab rests on the sill. The riser is of concrete with a fly-tight seat and lid. The building is 4'-0" square and consists of a two by four frame with vertical siding. The door height is 6'-4" and the flat roof slope is 1 to 4. Earth is well tamped around the pit box and mounded around the sill and floor to make the pit fly-tight. In emergencies the privies could be constructed quickly by using wood for the sills, floors, and risers instead of concrete.

**Earth Pit Latrine** (See Figure VII.)—The latrine herein described is essentially the same as the standard quartermaster latrine box of the United States Army. The same regulations regarding location of privies near water supplies should be followed in the case of latrines. The box has four seats with lids and is installed over a pit 2' wide, 8' long, and about 5' deep. In loose soil, and if the latrine is to be used for more than a few days, the pit should be lined with lumber to prevent caving. Earth should be tamped around the base to prevent the entrance of flies and rodents. The lumber should be comparatively free of knots and other defects so that the box will be fly-tight. In installations for men a urinal trough can be installed adjacent to the latrine with the drain discharging into the latrine pit. The trough should have a waterproof smooth lining. The bill of materials is given below.

Lumber for latrine box:

- 2 pieces 2 x 8 inches by 10 feet.
- 7 pieces 1 x 8 inches by 8 feet.
- 1 piece 1 x 8 inches by 10 feet.
- 4 pieces 1 x 2 inches by 10 feet.
- 2 pieces 1 x 4 inches by 10 feet.
- 2 pieces 2 x 2 inches by 10 feet.
- 1 piece 1 x 14 inches by 6 feet.

Hardware for latrine box:

- 4 pairs 3 inch strap hinges.
- 2 pounds 8 d common nails.
- 1 pound 20 d common nails.
- 2 pounds 7 d box nails.
- 1 pound 4 d box nails.

**Pail Latrine.**—The latrine box can be adapted for use with pails by installing hinged doors in the back of the box behind each seat. If possible, when located in a building, the latrine should be built-in so that the pails can be removed from the rear and from the outside of the building through openings in the wall. The doors should be fly-tight. The excreta should be emptied from the pails into a sewer or fly-tight pit at least daily. Disposal may also be accomplished satisfactorily by either burying or burning. When a pail is removed it should be replaced immediately with a clean pail.

## Section V

### GARBAGE, REFUSE, AND DEAD ANIMAL DISPOSAL GARBAGE

Garbage is an accumulation of solid and semisolid wastes produced in the preparation and handling of food. It does not include ashes or rubbish such as street sweepings, rags, wooden or paper boxes, etc. Average garbage contains from 70 to 80 per cent water and about 85 per cent of the dry material is combustible. Under normal conditions it will accumulate at a rate of approximately  $\frac{1}{2}$  lb. per capita per day.

Garbage is an important factor in the transmission of disease, chiefly because it provides food for houseflies and serves to attract them in large numbers to kitchens where they will in turn infect food. Decomposition of garbage produces odors which create a nuisance if the garbage remains in the vicinity of human habitations. Thus, the disruption of facilities for the handling and disposal of garbage seriously affects the public morale.

**Collection.**—Two general methods of garbage collection are usually employed—the mixed system and the separate system. In the mixed system the garbage is placed in containers along with refuse, ashes, etc., and is collected as such. In the separate system the garbage is placed in a separate container and collected in the same manner. During an emergency it is well to issue instructions to the public that the separate system will be employed since the collection and disposal of garbage must be given first consideration. If time and facilities permit, refuse, ashes, etc. can then be collected and disposed of. The accumulation of garbage has a greater health significance and more of an effect on public morale than does the accumulation of refuse, ashes, etc. It is also necessary that some preliminary planning be made regarding available trucks and places for disposal. The general methods that can be employed as means of disposal of garbage during an emergency are temporary storage, burial, land fill, hog feeding, and incineration.

**Temporary Storage.**—Temporary storage of garbage should not be practiced unless it is absolutely necessary; however, if such practice should become necessary the thing one must be careful of is not to cause a nuisance or a health hazard. During cold weather garbage can be stored in the open away from any human habitation. During warm weather it should be stored in odor-proof, rodent-proof, and fly-tight containers. These can be constructed of metal, concrete, or any other rodent-proof material. It is good practice to cover stored garbage with chloride of lime in order to control the odors.

**Burial.**—Where space is available, burial can be used as a means of disposal. The soil should be well drained and consist of loam or loam and sand. Clay soil is usually unsatisfactory. In general 2,500 square feet

of ground is required for the burial of one ton of garbage. The burial of garbage must be at least 200 feet from any public water supply. Ordinary practice is to bury the garbage in trenches two or three feet deep and three feet wide. When a trench is filled to within one foot of the top it should then be back filled and domed with earth. The burial of garbage during the winter months may become difficult because of frozen ground. In such a case temporary storage may become necessary.

**Land Fill.**—Land fill or “sanitary” fill as it is sometimes called, is a method of disposal of garbage, refuse, and ashes, by using them to fill in low or swampy areas. This method is seldom used for garbage alone but is usually operated along with the mixed system of collection. If possible, low areas not too close to human habitation should be selected for land fills. The first operation is to excavate soil or sand to be placed in stock piles for subsequent use as covering material. The material, which is brought by trucks, should then be dumped in the low area, leveled off, and compacted. This leveling and compacting can best be accomplished with a bulldozer. At the end of each day’s dumping operation, a 6 inch soil or sand cover should be placed over the material. A raw edge slope of limited extent should be exposed only sufficiently to allow for subsequent operations at the fill. When the fill reaches desired grade a sealing cover of 2 ft. of sand or soil is added. It is important that an adequate covering material be properly applied on the surface and face of the fill. The importance of careful planning, operation and maintenance of this method of disposal cannot be too greatly emphasized.

**Hog Feeding.**—About one-half, by weight, of garbage is edible and is suitable for food for hogs. Garbage that is older than 50-60 hours should not be fed to hogs. The feeding lot should be dry, sandy, well-drained, and a suitable distance from buildings. The garbage should be placed either on open feeding platforms which have a ledge around them or in enclosed feeding pens with concrete floors. The uneaten material should be removed after each feeding and either burned, buried, or composted with manure. Garbage-fed hogs are constantly subjected to exposure to disease. Also the dangers of trichinosis are ever-present in the consumption of pork produced from garbage-fed hogs. Thus it is recommended that if possible all garbage be cooked before being fed to the hogs.

**Incineration.**—In an emergency small amounts of garbage can be burned in household stoves or furnaces, provided the garbage is well drained. Garbage cannot be burned by itself and an auxiliary fuel such as wood or coal must be used. If mixed with combustible rubbish, usually no auxiliary fuel is required. For incineration to be effective, the garbage must be pre-heated and partially dried. A minimum temperature of 1250° F. is required to decompose the obnoxious gases produced. An incinerator should be located at least 500 yards from any place of human habitation and if possible on the leeward side.

There are three general types of incinerators: closed, semiclosed, and open. Only the closed incinerator produces temperatures high

enough to burn the gases and prevent odors. Such an incinerator would not be available for emergency use. The semiclosed type, which has a stack and which is protected from the rain, wind, etc., is too costly for emergency use unless it is constructed in conjunction with an emergency housing unit, etc. Detailed plans and specifications for closed and semi-closed incinerators are available in the central office of the State Board of Health. The open type would probably have to be resorted to as a temporary means of emergency incineration. This type has no stack and therefore no draft other than that produced by the wind and heat. The principal types of open incinerators that can readily be used are the rock pile incinerator and the barrel and trench incinerator. (See Figure VIII.) The rock pile incinerator consists of a circular pit, (16 feet in diameter and from 24 to 30 inches deep) in the center of which is a cone to divert the air currents upward. The walls, bottom, and cone are made of loose rock and should be from 12 to 18 inches thick. The cone extends five feet above the pit bottom and is three to four feet in diameter at the base and one foot in diameter at the top. The portion of the wall above the ground surface should be supported by an earth embankment. A six to twelve foot square rock apron should be constructed at one side of the pit on which the garbage cans may be placed. Draft holes can be placed around the bottom of the pit if desired. The barrel and trench incinerator consists of a barrel-like stack placed over the intersection of crossed trenches. Two trenches one foot wide and ten feet long should be dug so that they cross at right angles at the center of each trench. Each trench should slope from the ground surface at the end to a depth of eighteen inches at the intersection. The stack may be made of brick laid without mortar and should be  $2\frac{1}{2}$  feet high,  $4\frac{1}{2}$  feet in diameter at the bottom, and 3 feet at the top. This stack can be supported by scrap iron, pieces of pipe, corrugated iron, etc., and may also be made of rock or clay (moulded around a wooden barrel). A galvanized iron garbage can with the bottom removed can also be used for a stack.

## REFUSE

Refuse is composed of ashes, paper, rags, cans, bottles, floor and street sweepings, etc. Accumulations of refuse should be prevented because of the health hazards which result from breeding of rodents and insects and because of fire hazards. As in the case of garbage, some preliminary planning should be made regarding available trucks, places for dumping, etc.

Combustible refuse should be burned whenever possible. In places where garbage is incinerated such refuse should be burned along with the garbage in order to conserve fuel. Combustible refuse can also be buried or used for fill. Non-combustible refuse is best disposed of by dumping and should be used for fill whenever possible. Dumps should be located as far as possible from human habitation and should be constructed and maintained in such a way as to eliminate, as much as possible, a harboring place for rodents and insects. In general, the principles outlined under garbage for burial, land fill, and incineration can be applied to the disposal of refuse.

## DEAD ANIMALS

A serious problem which may present itself in an emergency is the disposal of dead animals. Burning is very difficult and almost out of the question. If at all possible a rendering plant should be located, as rendering is by far the most satisfactory means of disposal. Burying is perhaps the most practicable method; however, this means may become difficult in winter. Temporary covering with chloride of lime until burial may be necessary to eliminate or reduce the odors of decomposition.

## Section VI

### HOUSING

#### TEMPORARY AND SEMIPERMANENT HOUSING

Housing facilities must be provided for the citizens in any community after the occurrence of a major catastrophe. The health official having jurisdiction in that locality will be called upon for advice and of necessity will be required to provide leadership in obtaining satisfactory sanitary facilities in this connection.

**Evacuation.**—Authority may be found in the Tenement House Law of 1913<sup>1</sup> (which was amended in 1941<sup>2</sup>) and the Insanity Dwelling Law of 1917<sup>3</sup>, as well as the general health laws of 1909.<sup>4</sup>

As a general rule evacuation will be handled under the supervision of the Red Cross, or some other military or volunteer organization, rather than under the direction of the health official. However, it is well in this connection for the health official to advise the affected citizens to take necessary clothing and those small personal effects that may prove advantageous to the comfort as well as the future health of the citizens.

**Billeting.**—In times of emergency it may be necessary to billet the evacuees temporarily until arrangement can be made for more permanent housing facilities. These billets should be chosen with the utmost care, and the rules as laid down under subsequent sections for emergency housing should be adhered to as closely as possible. Every precaution should be taken to prevent overcrowding, and hygienic methods should be employed to eliminate lice and the much dreaded typhus fever.

**Site.**—Whenever it becomes necessary to construct or reconstruct temporary or semipermanent housing facilities, the first thing to consider is the site. A site should be chosen that is easily accessible to a good all-weather public road. In addition, it should not be adjacent to swampy ground or other mosquito breeding areas, industries which pollute the atmosphere with their exhaust, or those producing a volume of noise which would be objectionable to the occupants of the building. The floor of the building should be constructed in such a manner that dampness will be reduced to a minimum. A building of this type should not be located within 85 feet of any gasoline service station, or 300 feet of any bulk plant, refinery, etc. No inflammable liquids should be stored in buildings of this type.

**Water Supply.**—(See Sections I and III.) If it is found necessary to obtain water from a private source, the supply and all of the appurtenances thereto should be constructed and installed in accordance with the standards of the State Board of Health, after a survey has been made by a sanitary engineer. The water supply should be adequate to furnish

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<sup>1, 2, 3, 4</sup> See Appendix.

a minimum of from 20 to 25 gallons per occupant per day for personal hygiene.

**Plumbing Appurtenances.**—A sufficient number of water closets, urinals, and showers should be provided to accommodate approximately 5 to 10 per cent of the occupants at any one time. If water flushed closets are impractical, sanitary privies provided in the same ratio and constructed in the manner as outlined in Section IV will be satisfactory. The showers should be provided with hot and cold running water, and impervious floors sloped to an adequate floor drain. These showers should be installed in the ratio of one shower to each 25 occupants. Lavatories or wash basins in the ratio of one to each five individuals should be installed and provided with hot and cold running water. Each occupant should be provided with individual clean towels and individual soap-bars, or have access to soap dispensers. The use of the common towel and the common drinking cup should be prohibited.

**Sewage Disposal.**—Connection to the municipal sewer should be made whenever practical, or adequate private sewage disposal facilities should be provided. Detailed information on the construction of septic tanks and absorption systems may be obtained from the State Board of Health.

**Sleeping Quarters.**—No room used for sleeping quarters should contain more than 60 beds. A minimum of 400 cubic feet of air space, excluding all furniture except the bed, should be required for each occupant. However, where quarters are more or less of a permanent nature, 600 or 700 cubic feet of air space is more desirable, particularly in warm weather. Each occupant should be provided with a minimum floor space of 60 square feet. The beds should be placed at least 6 feet, center to center, and where the side bars of the beds are less than 5 feet apart, the head of each bed should be placed opposite the foot of each adjacent bed. Each occupied bed should be changed with clean linens at least once a week and with every change in occupancy.

**Ventilation.**—Each occupant should be provided with approximately thirty cubic feet of uncontaminated air per minute. Inlet and outlet grills, connected directly with the outside uncontaminated atmosphere, or windows should be provided with a total free area of one-tenth square foot per capita. These grills or windows should be protected with louvers and No. 16 fine screen wire mesh to prevent the entrance of rain, snow, sleet, flies, mosquitoes, and other insects and vermin. In providing for the free area, the number of square feet required should be doubled, because of the loss of air through the screened openings. In other words, if a total area of 5 square feet is required, when these openings are covered with adequate screening they should have a total overall screened area of 10 square feet.

**Lighting.**—It will not be possible for all health officials to have access to light meters which measure light intensities. Therefore, suggestions are offered which may be followed in a practical manner. These suggestions are predicated on average conditions. It must be appreciated that in administering the same, the reflecting conditions of the walls and

ceilings will have a direct bearing upon the light intensity. It may be necessary to increase or decrease the suggested values in order to fit the existing conditions. In general, the sources of light should be provided with diffusing bowls and should be installed at least 8 feet from the floor. The center to center distance between fixtures should be approximately the same as the height from the floor and in no case more than 1½ times the height. The total suggested wattage per fixture should be in accordance with the following table.

	Height of Room			
	8 Feet	10 Feet	12 Feet	14 Feet
Sleeping Rooms .....	100	150	200	250
Recreation and Dining Rooms	200	300	400	500
Toilet Rooms .....	100	150	200	250

**Heating.**—All rooms should be maintained at a temperature which is satisfactory to the majority of the occupants. If stoves are used, they should be preferably of the jacket or circulating type. While stoves are usually the most economical, if fired properly, they are not the most satisfactory type of heat. If other types of heating are used, they should be operated and maintained in the conventional manner.

**Exits.**—At least two 44 inch exit doors should be provided and be located as remotely as possible from each other. Doors should swing outwardly only. If existing facilities are to be used and adequate exits with narrower width doors are provided, they should be considered satisfactory.

**Fire Extinguishers.**—At least two fire extinguishers should be provided for each building, one of which should be of the 2½ gallon soda and acid type.

**Electric Wiring.**—All electric wiring in existing buildings should be visually inspected by a competent individual and made to comply as nearly as possible with the recommendations of the State Fire Marshal's office.

**Miscellaneous.**—If meals are to be served, the kitchen, dining room, and pantry should be separate and apart from the sleeping quarters and toilet rooms, and should be made to comply as nearly as possible with the rules and regulations of the State Board of Health. At least one complete first aid cabinet should be provided in each building for emergencies, and whenever possible a telephone should be made available. All doors, windows, and other outside openings should be properly screened with No. 16 wire mesh.

## REHABILITATION

**Buildings Subjected to Gas Attacks.**—There seems to be no feasible means of economically decontaminating the interior of average buildings that have been subjected to a gas attack. The use of a 1 to 1 slurry as advocated for decontamination of streets, etc., which requires about one pound of chloride of lime per square yard, makes the obtaining of such material to decontaminate buildings almost impractical. In addition, it

is considered inadvisable to apply this to the interior of decorated buildings and to furniture and other equipment usually found therein. The only authoritative information obtainable on this subject suggests that the windows be kept open and portable fans be installed in convenient places for the recirculation of air in the rooms. The temperature should be maintained at approximately 150°F. It is felt that this method in a few days will make the building satisfactory for normal usage. Any building that has been subjected to either high explosive, incendiary, or gas bombs should be thoroughly investigated and every effort expended in determining whether it is structurally sound before being allowed to be used for human habitation.

The decontamination of clothing may become a serious problem also. The simplest method is to expose it to air and sunlight for at least two days. A more positive method is to steam the clothing from four to six hours. A simple steaming device can be made from a large can with a false bottom. A third method is to soak the clothing in a solution containing  $\frac{1}{4}$  lb. of washing soda per gallon of water, keeping the temperature of the solution at approximately 175°F. In emergencies it is very likely that laundries would be interested in the decontamination of clothing. When chlorine gas is available, the clothing may first be exposed to the gas in a tightly closed room. Then this may be followed with the steam treatment or the hot soda solution treatment. Ordinary dry cleaning methods will not suffice for treating contaminated clothes. Shoes are difficult to decontaminate when permeated with mustard gas. The use of bleaching powder and hot water seems to be the most satisfactory method.

**Buildings Subjected to Floods.**—Those buildings which have been flooded should be examined carefully before being permitted to be used for human habitation in order to ascertain whether the building is safe and will not collapse. The doors and windows which may have been swollen should be removed, as well as the casing strips and hardware, and stacked on skids outdoors where they should be allowed to dry thoroughly. The basement should be drained either by means of a floor drain and gravity, or by pumping, or baling. As the water is being removed the mud should be stirred and carried away with it. After the basement has been allowed to dry thoroughly, the floors and walls should be washed down with a solution of one pound of chloride of lime to eight gallons of water. In order to remove the musty odor or to "sweeten" the atmosphere, it is often found advisable to sprinkle the walls and floors with chloride of lime.

The walls, woodwork, and doors while still damp should be thoroughly scrubbed with a stiff fibre brush and plenty of clean water to remove all mud and salt. Particular attention should be given to all corners, cracks, and crevices which should be subjected to the same treatment before they are dried. Floors should be cleaned of all mud and dirt and allowed to dry thoroughly. Some artificial heat may be used with caution. The temperature should not get high enough to cause steam (vapor) to rise from the floor as this may cause buckling or warping. If the floor is not badly buckled or warped, cleaning and sanding may be sufficient, however, it is often necessary to cover this

type of floor with linoleum and a base. Roofs should be repaired with the same material if at all possible.

The plaster should be checked with a stick to avert the possibility of having pieces of wet plaster falling on the occupants. Those sections that remain securely in place after becoming bone-dry may be cleaned with stale bread crumbs, sponge rubber, or wallpaper cleaner.

All of the hardware should be removed and after being cleaned should be oiled and greased thoroughly. The entire heating system should be checked and all mud and debris should be removed before placing the unit in operation.

Redecorating should not be attempted for some time as it is useless to try to paint damp surfaces, and it may be found that three or four months' drying time is required before the decorating can be done satisfactorily. However, soiled paint may be rejuvenated in the following manner. After shaving a large cake of laundry soap in a quart of boiling water, dissolve two ounces of flake glue in one quart of boiling water and mix the two thoroughly. Allow to cool and apply to walls and other surfaces. After applying allow to stand 5 to 10 minutes and rinse with clear water and wipe dry with a clean cloth. All loose pieces of wallpaper should be pulled off. If it is so desired, small sections may be salvaged by resticking with the use of paper-hangers' paste which is made of wheat flour. Mould may be removed from wallpaper by the use of a solution containing one part of salicylic acid and four parts of grain alcohol. Grease spots may be removed by either the use of calcined magnesia or carbonate of magnesium paste.

Rugs and carpets should be stretched out on a flat surface and allowed to dry thoroughly, then subjected to beating, sweeping, or vacuum cleaning. Those rugs that require shampooing should be washed with soap jelly, wiped off, rinsed with clean water, and allowed to dry thoroughly. Soap jelly may be prepared by mixing one pint of mild soap flakes with five parts of hot water and beating with an egg beater until a stiff lather is formed. Resizing should be done when necessary. Sizing may be prepared by the use of one-half pound of granulated glue to one gallon of boiling water. Stretch the rug out flat where it will not be disturbed, apply the sizing with a wide brush, and allow it to dry thoroughly. When practical, upholstery may be rejuvenated by following the procedure as outlined for rugs. Springs should be wiped with kerosene and then rubbed with oil or grease.

Furniture should be removed to the sunsh'ne and fresh air and all the drawer-slides and other working parts stacked separately. All of the mud and silt should then be removed. Care should be exercised to remove the furniture from the direct rays of the sun before it is subject to warping. Stoves and other metal fixtures should first have all the mud and silt removed. They should then be wiped with a kerosene rag, oiled or greased, and polished or painted accordingly. Books should be allowed to dry carefully and slowly with alternate exposing to air and pressing. Toward the end of this treatment the books may be subjected to small amounts of artificial heat.

Clothing and bedding require considerable care to obtain satisfactory rejuvenation. All loose dirt on linens and cottons should be

brushed off, and mud-stained garments should be rinsed in cold water to remove the mud. Wash these in warm soapy water, rinse until clean, and allow to dry in the sun. In extreme cases, cottons and linent may require the use of "Javelle" water or a weak solution of oxalic acid (one ounce of oxalic acid to one gallon of water). Then rinse in ammonia water. Woolens should only be submerged in luke warm water. Mattresses that are badly stained are usually not fit to reclaim. Pillows should be opened and the feathers dried thoroughly and replaced. Comforters, if of the light variety, may be washed in the same manner as cotton or woolen blankets. However, heavy comforters should be taken apart and treated accordingly.

#### **JOINT RESPONSIBILITY OF VARIOUS AGENCIES CONCERNING SERVICES DURING EMERGENCIES**

Following is an excerpt of a joint agreement consummated on September 8, 1942. This agreement is based upon the American Red Cross—Office of Defense Health and Welfare Services (ODHWS) Agreement dated April 17, 1942; the American Red Cross—Office of Civilian Defense (OCD) Agreement dated May 18, 1942, and will control the relationships between the American Red Cross and its chapters in Indiana, the Indiana State Board of Health and its local representatives, the Indiana State Department of Public Welfare, and its local representatives, and the Indiana State Council of Defense and local Defense Councils in matters concerning disaster relief and civilian war aid.

During an emergency period created by enemy action where "Civilian War Aid" becomes necessary, the several agencies participating in this agreement will make available their facilities and services in the following manner:

1. The American Red Cross shall be responsible for the individuals or families who need mass care services during the entire emergency period. (Mass care shall be provided when the emergency is serious enough to warrant the use of mass care methods or where the facilities for the care of persons on an individual basis have been destroyed. Mass care shall continue until the individuals or families can make their own plans or can be provided care on an individual basis.)
2. The American Red Cross will arrange for an orderly termination of its services as speedily as the Department of Public Welfare is able to make provision for the individuals and families. Any information as to services rendered by the American Red Cross will be delivered to the County Department of Public Welfare as each transfer is effected.
3. The State and County Welfare Departments will be responsible for individuals or families who need assistance or service other than mass care by (a) providing cash grants or vendors orders, (b) providing the necessary case work services, and (c) other services as designated by the Office of Defense Health and Welfare Services. (The Indiana State and local Public Welfare Departments shall make available their services and facilities to individuals needing care (other than mass care) as soon after the emergency begins as is possible. The Department of Public Welfare shall continue to make provision for assistance and service for the individuals or families until all individuals and families have been re-established in their usual living situations.)

## Section VII

### FOOD SANITATION

The various types of emergencies in which one may become involved when considering emergency food sanitation are: floods, fires, wind, bombing, extreme changes in temperature, etc. When confronted with such emergencies it may become necessary to deal with water-soaked material, material contaminated by sewage or questionable water, material damaged by high or subnormal temperatures, filth and dirt contamination, gas contamination, food poisoning, etc. Retail establishments (restaurants, grocery stores, and meat markets), wholesale houses, and manufacturing establishments may all be affected.

The importance of preventing the consumption of foods that have become contaminated or rendered unwholesome makes necessary the prompt destruction of such products which may be dangerous to health, and salvaging of others exposed to contamination in such a way to obviate injury to the consuming public. Where owners, warehousemen, transportation agencies, and others will voluntarily follow the advice concerning the disposition of contaminated or unwholesome products, formal seizures should not be invoked. When necessary, of course, appropriate legal action may be recommended to obtain the objective.

A record should be kept of all destruction and salvaging operations. In addition, an alert lookout should be maintained for commercial salvage concerns coming to the area for the purpose of buying up damaged material for reconditioning at distant points where salvaging may not be done under proper supervision. If products do escape by this route their destination should be determined and reported to the central office of the State Board of Health immediately so that appropriate action may be taken.

#### FLOODS

**Fresh Fruits and Vegetables.**—If these products possess an impervious peel or skin and can be used immediately they may be washed in soapy water, rinsed in clear water, and finally rinsed in a chlorine solution containing 100 p.p.m. of available chlorine. (See Table II.) If the fruits or vegetables are to be cooked at a high temperature before being consumed, a thorough washing in soapy hot water and rinsing in clear water will be sufficient. Products not possessing an impervious peel or skin must be destroyed.

**Meats.**—All meats should be destroyed, except those in hermetically sealed containers.

**Products in Non-Hermetically Sealed Containers.**—(Such products would include breakfast cereals, bakery goods, condiments, dried fruits, etc.) If such products, upon visual inspection, have been contaminated, water-soaked, or have absorbed moisture they are to be destroyed.

**Products in Hermetically Sealed Containers.**—Sanitary cans may be washed individually in soapy water and submerged in a chlorine solution of 100 p.p.m. of available chlorine, (see Table II) dried, relabeled, and placed in dry cartons or boxes. Screw, cap, and crimp cap containers may be salvaged under certain conditions. During the 1937 Ohio River flood, products in such containers were destroyed with very little, if any, attempt made to salvage. If an attempt is made to salvage such products, every precaution should be taken to determine the degree of contamination. By carefully inspecting a representative sample of the stock and by carefully observing the appearance of the inside of the cap and the lip of the containers some conclusions may be drawn. If any foreign matter has saturated the inside of the screw or crimp cap, it would be advisable to destroy the products. However, if upon examination, any foreign matter is in evidence, it is reasonable to believe that the product may be salvaged by thoroughly scrubbing in soapy water, rinsing in clear water, and finally submersing in a 100 p.p.m. chlorine solution for at least 15 minutes. If available, a wetting agent may be used in connection with the chlorine bath. This would assist the chlorine in reaching the deepest crevice. Corked containers are most difficult to properly sterilize and therefore it is advisable to destroy such containers of food. After the washing and sterilizing have been completed, representative samples should be drawn from the lot and submitted to the central office of the State Board of Health before the lot is released for consumption. Generally speaking, representative samples should be somewhat in proportion to the size of the lot involved. When in doubt, follow the square root rule with a minimum of three samples to be taken. If for instance, the lot contains 100 units, withdraw ten samples, which is, of course, the square root of the lot involved.

## FIRE

As in the case of floods, all water-soaked articles should be disposed of except, of course, those foods packed in waterproof containers, such as tin or glass. The source of water used in extinguishing the flame should be known and if it is from an approved public water supply there will be slight danger of contaminating the products involved, other than by making the product unsalable because of water-soaking. If a questionable supply of water was used, the procedure suggested in floods should be followed. Particular attention should be given to those products which may have been subjected to high temperatures and smoke damage. Foods in hermetically sealed containers will remain edible if there is no evidence of scorching or other damage. Damage of this type may be determined by external appearance of the container, by taste, and by odor. Products in non-hermetically sealed containers will absorb fire odors even though they may not have been exposed to high temperatures or water. Such products, of course, are not injurious to consumers but are definitely unpalatable. Very little can be done to salvage such products. Careful investigations should be made to determine if any products have been contaminated by broken sewage lines. Food showing evidence of having been contaminated by

sewage must be handled similarly to methods outlined for floods, and if evidence indicates heavy sewage contamination the product should be destroyed without attempting salvage.

### **EXTREME CHANGE IN TEMPERATURE**

This emergency will usually occur as a result of extremely cold temperatures and generally will affect livestock such as chickens, turkeys, or other edible fowl and animals. It should be remembered that a warm-blooded animal which has frozen to death will not, upon butchering, bleed properly. Meat obtained from such animals is ordinarily considered unfit for food. Food in hermetically sealed containers which has been subjected to freezing temperatures ordinarily is not rendered injurious to health unless the container has been broken or expanded to the point where the food is exposed to air, in which case decomposition will set in as soon as the product returns to normal temperature. It should also be noted that the physical appearance and composition of the product will be changed to the extent that it may break down and become watery.

### **WIND**

In case of strong winds water damage may result, due to fires, or due to a heavy rain which may follow. Also the problem of broken sewerage lines may have to be taken into consideration. These cases should be treated as outlined for floods. The third form of contamination as the result of wind may be filth and dirt blown into the exposed products. Such products can, under certain conditions, be reconditioned by removing the exposed surfaces.

### **BOMBING AND WAR GASES**

Bombing may include all of the emergencies listed above, such as floods, fires, etc. If food products are involved they should be handled as outlined previously if such damage is the result of fire and water.

Another form of contamination under this heading is by gas. The substances most likely to be used and to affect food are phosgene, chlorine, arsenical smokes, mustard gas, Lewisite, or other chlor-arsines. The actual decontamination of any food is not particularly recommended unless, of course, there is a severe food shortage.

Foods contaminated with phosgene, chlorine, or other volatile gases can be decontaminated by airing for 48 hours or boiling with water. If there is the slightest suspicion that food has been in contact with a solid, liquid, or vapor containing arsenic, the food should either be destroyed or not eaten until declared harmless as the result of laboratory analyses. Serious contamination is most likely to occur by contact with Lewisite or similar substance, particularly in the liquid form. Some of the substance may be removed on airing, but a large portion will be held in solution in the fats or will be hydrolyzed by the water present in the food. All food which has been in contact with liquid mustard gas or similar non-arsenical liquids will be spoiled to some extent and may be dangerous. Fatty foodstuffs, including dairy products

and fatty meats and fish, will be seriously affected and must not be consumed, even after cooking, unless it has been found possible to carry out suitable decontamination measures. This class of food may also become dangerous by absorption of the vapor of these substances and there is no way of reversing the damage. Most other foodstuffs similarly exposed become edible after 48 hours airing and subsequent cooking, but the flavor may be impaired.

Canned or bottle goods may be used if the containers are immersed in boiling water before opening. Ordinary paper or cloth coverings are of no protection. Wax paper covers give fair protection against gas vapors but only limited protection against liquids. Ordinary soft-wood boxes, if tight and lined with grease-proof paper, give considerable protection against vapors but very little against liquids. Thick cardboard is not quite as good as wood. Warehouses for the storage of food in bulk can be made gas-tight as can home refrigerators. All food should be kept in its original container until time for use.

## MISCELLANEOUS

Miscellaneous types of emergencies may exist because of epidemics of food poisoning, or by accidental contamination caused by insect or rodent extermination. In any event, before any type of formal action or deductions can be instituted it is necessary to obtain considerable pertinent information and submit it to the central office of the State Board of Health along with proper samples. Food poisoning arises from three main causes: (1) accidental contamination of foods by inorganic poisons such as arsenic, antimony, copper, and lead; (2) bacterial contamination; (3) poisoning with criminal intent. Bacterial contamination is of much more frequent occurrence, especially in the case of foods of animal origin and foods which are ideal for bacterial growth such as cream foods, cream pie fillings, and various non-acid sauces, fillings, etc. Care should be taken to secure samples from all available food materials apart from those to which suspicion is attached at first sight. It frequently happens that a food material which was not suspected in the first instance has actually proved to be the material at fault. The complete history of all cases reported should be obtained with the least possible delay, as the determination of the circumstances in which food poisoning has occurred often turns upon the elucidation of apparently trivial points, and after a few days it is impossible to rely on accurate recollection of them. Moreover, as time goes on, inaccurate statements are repeated and believed, and it is difficult to get at the facts. A complete statement should be obtained from the attending physician as to the symptoms and the conditions which prevailed.

Accidental contamination of food products caused by insect or rodent extermination usually involves potent chemical poisons or one of the creosote derivatives. Odors arising from creosote derivatives have great penetrating power and if foods have not been properly protected while a room or building is being sprayed foods packed in even waxed paper wrappers may be suspected of carrying undesirable odors,

thus making the products unfit for food. This is not to indicate that such products are dangerous, but they definitely become unsalable.

In the case of floods, special attention should be given to the proper cleaning of equipment and machinery before food is manufactured. The interior of the building should be washed and scrubbed and repainted. The equipment and machinery should be thoroughly washed in hot water and then subjected to a thorough steam cleaning and finally, if possible, given a thorough washing with chlorine solution. All pipes and retaining vessels should, after thorough washing and steaming, be filled with a chlorine solution, plugged, and be allowed to stand for twenty-four hours. Particular attention should be given to the water supply to make sure that it has not become contaminated. The interior (floors, walls, ceilings, counters, tables, chairs, etc.) of retail establishments such as restaurants, grocery stores, and meat markets should be thoroughly scrubbed with soap and water, rinsed with clear water, and then finally rinsed with a chlorine solution. Walls, ceilings, and counters should be repainted. Refrigerators, iceboxes, and display cases should be thoroughly washed and given a final rinse with a chlorine solution of 100 p.p.m. All utensils in the establishment should be thoroughly washed and boiled in water for ten minutes. Food products held in storage in warehouses or wholesale houses should, of course, be handled as outlined in the above. The interior of the warehouse should be completely renovated by proper washing and repainting.

## Section VIII

### MILK SANITATION

During an emergency, two vital factors involved in a safe milk supply are: (1) a safe water supply and (2) adequate power facilities. If a water supply of sanitary quality should be discontinued for any reason, equipment and containers cannot be satisfactorily cleaned and sterilized. If power is shut off for any length of time, processes cannot be continued. Thus it is important that every effort be made to maintain water and power service to milk pasteurizing plants. An uninterrupted milk supply is essential because of the value of milk as a food and also because of the effect of discontinued service on public morale.

Pasteurization of milk is the safety factor that protects the public against the spread of milkborne diseases. If any or all pasteurizing plants in a community should meet with a disaster, arrangements should be made for the prompt use of excess pasteurizing facilities or excess pasteurized milk in neighboring plants or communities. A survey should be made to determine the number of pasteurizing plants along with their normal loads and excess capacity. A survey should also be made to provide for the emergency use of private water supplies, electric power sources, portable steam boilers, portable electric generators, milk trucks, or anything else required for operation of a crippled milk plant.

In some cases it may be impossible to supply pasteurized milk but possible to distribute it raw. Provisions should then be made to warn the public to boil all milk or to pasteurize it at home. This may be done either through the use of milk bottle collars containing a warning that the milk is raw and should be boiled, or through issuance of a leaflet giving instructions for home pasteurization. Home pasteurization can be accomplished by heating the milk quickly in a double boiler to at least 160° F. and then cooling it rapidly. The milk should be stirred slowly while being heated. If a satisfactory thermometer is not available the raw milk should be boiled. It is dangerous to guess at the temperature. The cooled milk should not be placed back into the raw milk container until the container is first cleaned and sealed.

Preliminary plans should be made for diverting milk on short notice from evacuation areas to emergency housing areas. Emergency transportation plans such as pooling of delivery services should also be formulated, and during an emergency all distributing agencies should be consulted in order to insure prompt delivery of milk. Condensed, dried, or evaporated milk may be substituted for pasteurized milk and when an emergency occurs stocks of such materials should be immediately located. In pre-emergency planning, a sufficient reserve of these materials should be kept on hand if possible.

As an act of sabotage, various poisons could be added to milk before it reaches the plant. Such poisons could be carried through the plant processes and in turn be injurious to the consumer. Positive pasteurization will destroy any bacteria which might be added to milk before it reaches the plant, but bacteria added after pasteurization is completed would be dangerous. Any milk supply or a part of a supply which is suspected of having been contaminated should be embargoed until it has been subjected to laboratory analysis.

## Section IX

### TABLES, FIGURES, AND OTHER PERTINENT DATA

#### TABLE I EQUIVALENTS

Dry measure (HTH, Perchloron, or Chloride of Lime):

16 ounces = 1 pound  
5 ounces = 1 level cup  
1 level tablespoon =  $\frac{1}{4}$  ounce  
1 level teaspoon = 1/10 ounce

Liquid Measures:

4 quarts = 1 gallon  
2 pints = 1 quart  
4 gills = 1 pint  
2 cups = 1 pint  
16 tablespoons = 1 cup  
3 teaspoons = 1 tablespoon  
Approximately 100 drops = 1 teaspoon

TABLE II  
CHLORINE DOSAGES

Dosage	50	100	200	300	400	500	1000	2000	3000	4000	5000	10,000
*(HTH or Perchloron—70 per cent available chlorine—ounces)												
1 p.p.m.	.01	.02	.04	.06	.08	.10	.19	.38	.57	.76	1.00	1.91
2 p.p.m.	.02	.04	.08	.11	.15	.19	.38	.76	1.14	1.52	1.91	3.81
5 p.p.m.	.05	.10	.19	.29	.38	.48	1.00	1.91	2.86	3.81	4.76	9.53
10 p.p.m.	.10	.19	.38	.57	.76	.95	1.91	3.82	5.73	7.64	9.53	19.07
50 p.p.m.	.48	.96	1.92	2.86	3.82	4.76	9.55	19.1	28.6	38.2	47.6	95.5
100 p.p.m.	.95	1.91	3.82	5.73	7.64	9.54	19.1	38.2	57.3	76.4	95.3	191
200 p.p.m.	1.91	3.82	7.63	11.4	15.2	19.1	38.2	76.4	114	152	191	381
*(Chloride of Lime—25 per cent available chlorine—ounces)												
1 p.p.m.	.03	.05	.11	.16	.21	.27	.53	1.07	1.60	2.14	2.67	5.35
2 p.p.m.	.05	.11	.21	.32	.43	.53	1.07	2.14	3.19	4.28	5.35	10.7
5 p.p.m.	.13	.27	.53	.80	1.07	1.33	2.67	5.35	8.0	10.7	13.3	26.7
10 p.p.m.	.27	.53	1.07	1.60	2.14	2.67	5.35	10.7	16.0	21.4	26.7	53.5
50 p.p.m.	1.33	2.67	5.35	8.0	10.7	13.3	26.7	53.5	80.0	107	133	267
100 p.p.m.	2.67	5.35	10.7	16.0	21.4	26.7	53.5	107	160	214	267	535
200 p.p.m.	5.34	10.7	21.4	32.0	42.8	53.5	107	214	320	428	535	1070
(Volume of 1.0 per cent Liquid Sodium Hypochlorite—in pints)												
1 p.p.m.	.04	.08	.16	.24	.32	.40	.80	1.6	2.4	3.2	4	8
2 p.p.m.	.08	.16	.32	.48	.64	.80	1.6	3.2	4.8	6.4	8	16
5 p.p.m.	.2	.40	.80	1.2	1.6	2	4	8	12	16	20	40
10 p.p.m.	.4	.80	1.6	2.4	3.2	4	8	16	24	32	40	80
50 p.p.m.	2	4	8	12	16	20	40	80	120	160	200	400
100 p.p.m.	4	8	16	24	32	40	80	160	240	320	400	800
200 p.p.m.	8	16	32	48	64	80	160	320	480	640	800	1600

\* For small quantities of HTH, Perchloron, or chloride of lime, first made up a 1.0 per cent solution and then use the same dosage listed for 1.0 per cent liquid sodium hypochlorite. To make up a 1.0 per cent solution, add 1½ pounds of HTH or Perchloron, or 3½ pounds of chloride of lime to 10 gallons of water.

TABLE II—(Cont'd)

Smaller quantities of water than listed in the above table can be disinfected for drinking and culinary purposes as follows: Prepare a fresh stock chlorine solution by adding 1 level teaspoon of HTH-70, Perchloron, chloride of lime, or a commercial chlorine solution (6-8%) to one quart of water. Then stir two teaspoonsfuls of this stock solution into each 2½ gallons of water to be disinfected when using HTH-70 or Perchloron, or into each one gallon of water when using chloride of lime, or into each one-third of a gallon of water when using a commercial chlorine solution.

There are many other chlorine compounds and solutions available which can be used instead of HTH, Perchloron, chloride of lime, or liquid sodium hypochlorite for disinfecting water. Dosages for these other compounds can be computed by using the above table and the following formula:

$$\frac{D_1 \times P_1}{P_2} = D_2, \text{ where}$$

$D_1$  = dosages from the table (ounces or pints)

$P_1$  = 70, 25, or 1 per cent, depending on which section of the table  $D_1$  is taken from

$D_2$  = dosage for chlorine compound or solution on hand

$P_2$  = per cent available chlorine in  $D_2$

#### Example:

How much HTH-15 (15% available chlorine) or Boro-chlor (14% liquid sodium hypochlorite) is required to chlorinate 1,000 gallons of water with a dose of 2.0 p.p.m.?

(1)  $0.38 \text{ ounces} \times \frac{70}{15} = 1.77 \text{ ounces HTH-15} = 7 \text{ level tablespoons.}$

(2)  $1.6 \text{ pints} \times \frac{1}{14} = 0.114 \text{ pints Boro-chlor} = 11 \text{ teaspoons.}$

TABLE III  
MAIN STERILIZATION

**Quantity of Disinfectant Required to Provide a 50 p.p.m.  
Dose of Chlorine**

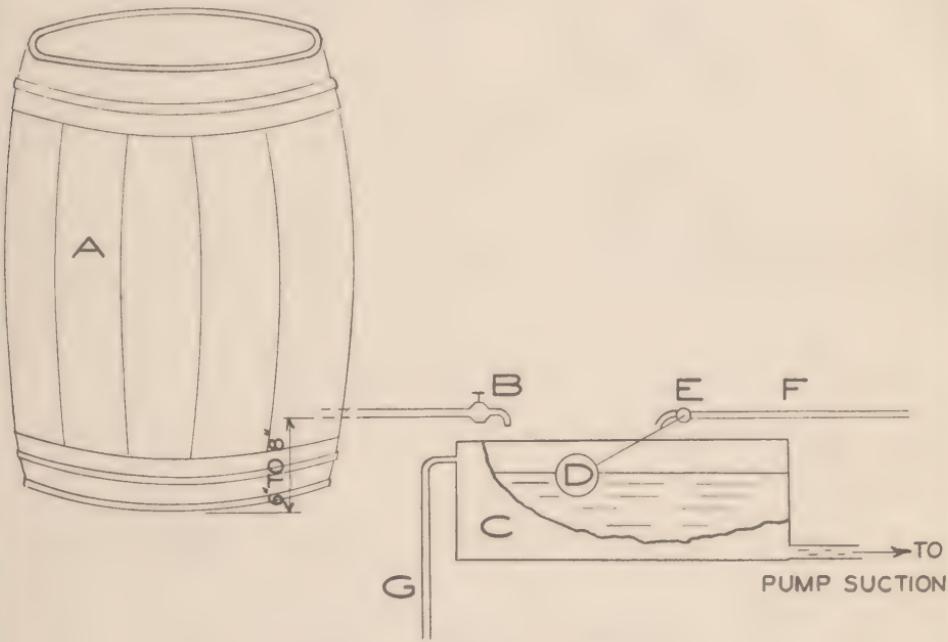
Diameter of pipe in Inches	Gallons per 100 feet Length	Ounces Chlorine per 100 Feet	Ounces Chloride of Lime per 100 Feet (25%)	Ounces HTH or Perchloron per 100 Feet (70%)	Gills Sodium Hypochlorite per 100 Feet (10%)
1/2	1.05	.0070	.028	.01	.017
3/4	2.30	.0154	.061	.02	.037
1	4.10	.0274	.110	.04	.066
1 1/2	9.20	.0614	.246	.09	.147
2	16.40	.1095	.438	.16	.262
3	36.80	.2460	.584	.35	.589
4	65.50	.437	1.748	.63	1.05
6	147	.98	3.92	1.40	2.35
8	261	1.74	6.96	2.50	4.18
10	408	2.73	10.92	3.90	6.53
12	588	3.92	15.68	5.60	9.41
16	1,044	6.97	27.88	9.96	16.7
18	1,325	8.84	35.36	12.63	21.2
20	1,632	10.9	43.6	15.57	26.1
24	2,352	15.7	62.8	22.43	37.6
30	3,672	24.5	98.0	35.00	58.6

TABLE IV  
**DIRECTIONS FOR PREPARING ORTHOTOLIDINE  
SOLUTION**

1. Dilute 100 cc. of concentrated hydrochloric acid (CP) to 500 cc. with distilled water.
2. Weigh out one gram of Orthotolidine crystals (Eastman Kodak Company, No. 249 is recommended) and transfer to a mortar.
3. Moisten the crystals with 5 cc. of the dilute hydrochloric acid and grind to a thin paste.
4. Dissolve this paste in about 200 cc. of distilled water, add the remainder of the dilute acid, and make up to one liter (1000 cc.) with distilled water.

## EMERGENCY HYPOCHLORINATOR

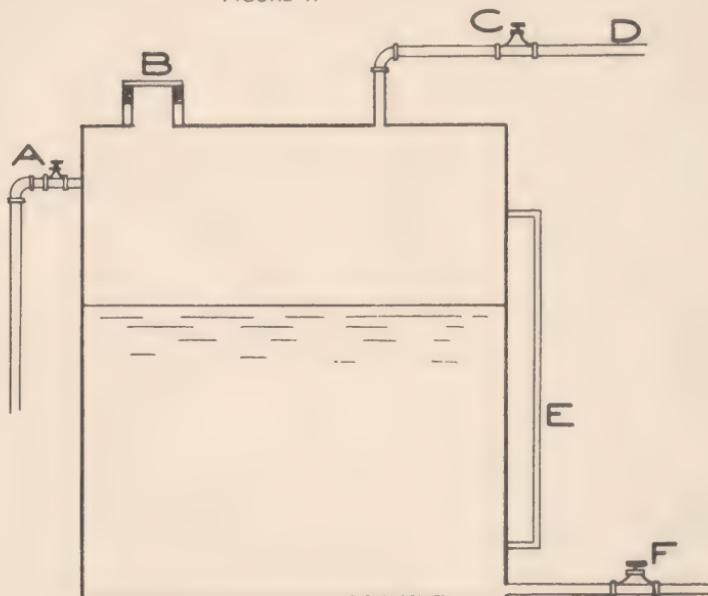
FIGURE 1



- A. HYPOBARREL OR OTHER CONTAINER
- B. SPIGOT TO ADJUST DRIP FEED
- C. DILUTION BOX
- D. HARD RUBBER FLOAT
- E. FLOAT VALVE
- F.  $\frac{3}{4}$ " WATER SUPPLY LINE
- G.  $\frac{3}{4}$ " OVERFLOW

## EMERGENCY HYPOCHLORINATOR

FIGURE II

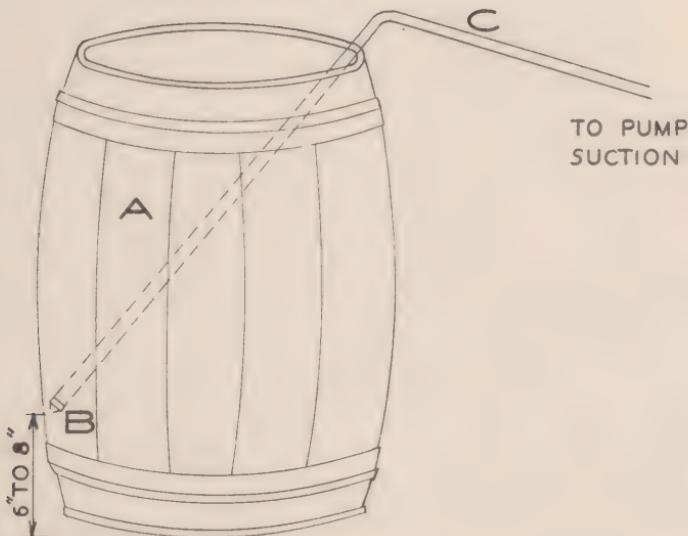


- A. AIR RELIEF VALVE
- B. AIR TIGHT CAP—REMOVABLE FOR REFILLING
- C. PRESSURE CONTROL VALVE
- D. AIR PRESSURE LINE
- E. GAGE GLASS
- F. FEED CONTROL VALVE

NOTE: This arrangement can best be used in connection with air-lift pumps in which case the chlorinator can operate at the same time as the pumps.

## EMERGENCY HYPOCHLORINATOR

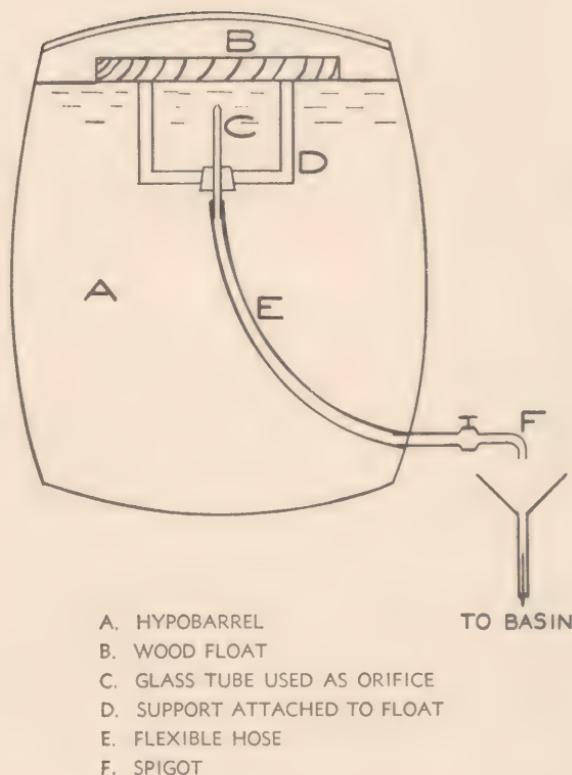
FIGURE III



- A. HYPOBARREL OR OTHER CONTAINER
- B. MEDICINE DROPPER USED AS ORIFICE
- C. FLEXIBLE TUBING (Must be strong enough to prevent collapsing under suction)

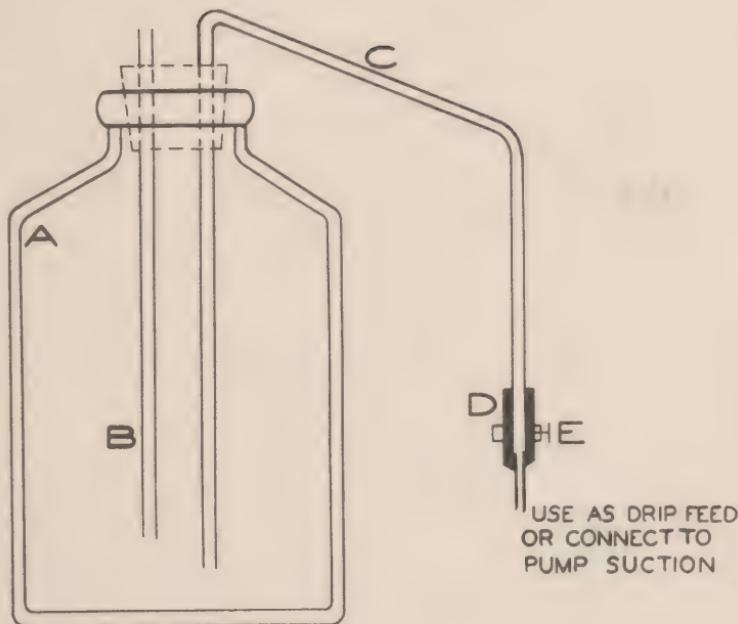
## EMERGENCY HYPOCHLORINATOR

FIGURE IV



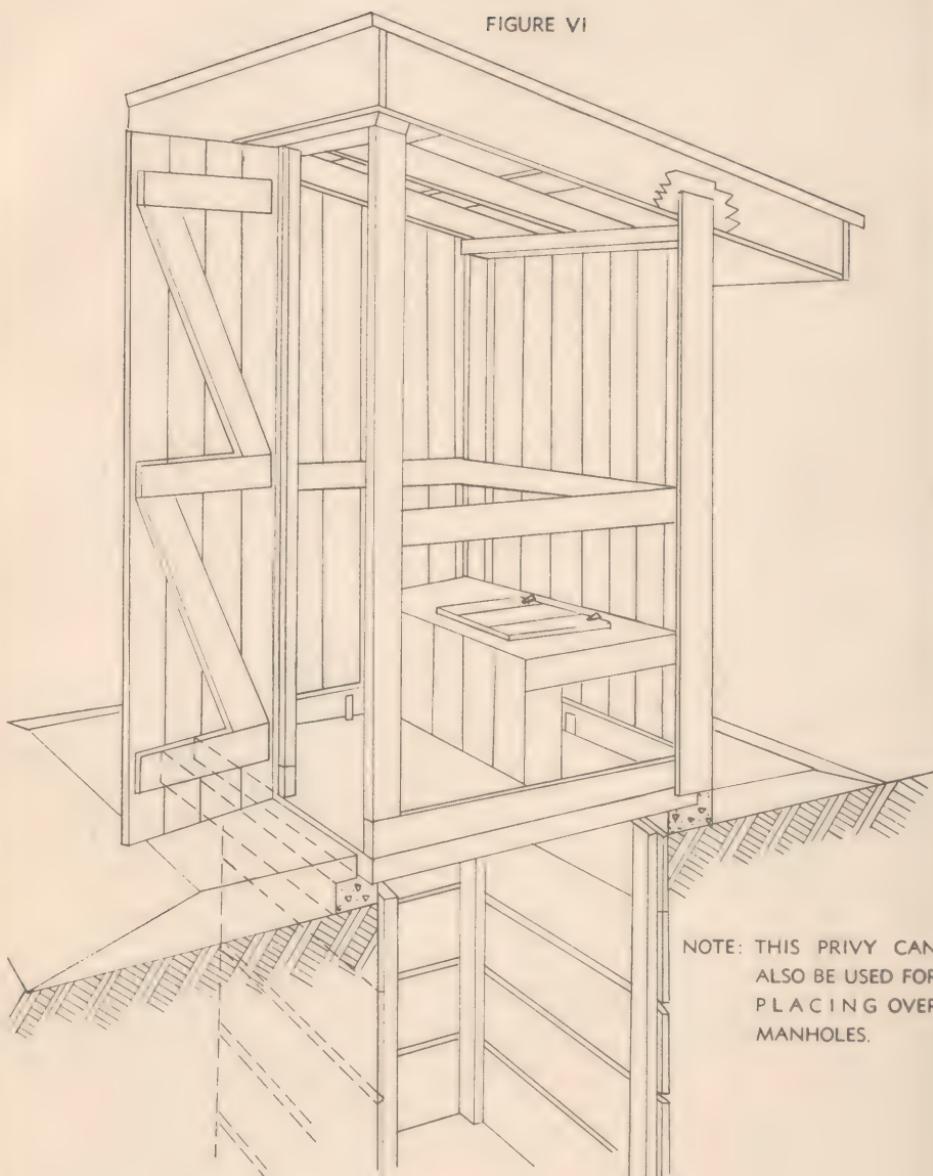
## EMERGENCY HYPOCHLORINATOR

FIGURE V



- A. GLASS CARBOY
- B. GLASS TUBING "BREATHER"
- C. GLASS TUBING FEEDER LINE
- D. RUBBER TUBING
- E. CLAMP TO REGULATE FLOW

FIGURE VI



NOTE: THIS PRIVY CAN  
ALSO BE USED FOR  
PLACING OVER  
MANHOLES.

EARTH PIT PRIVY

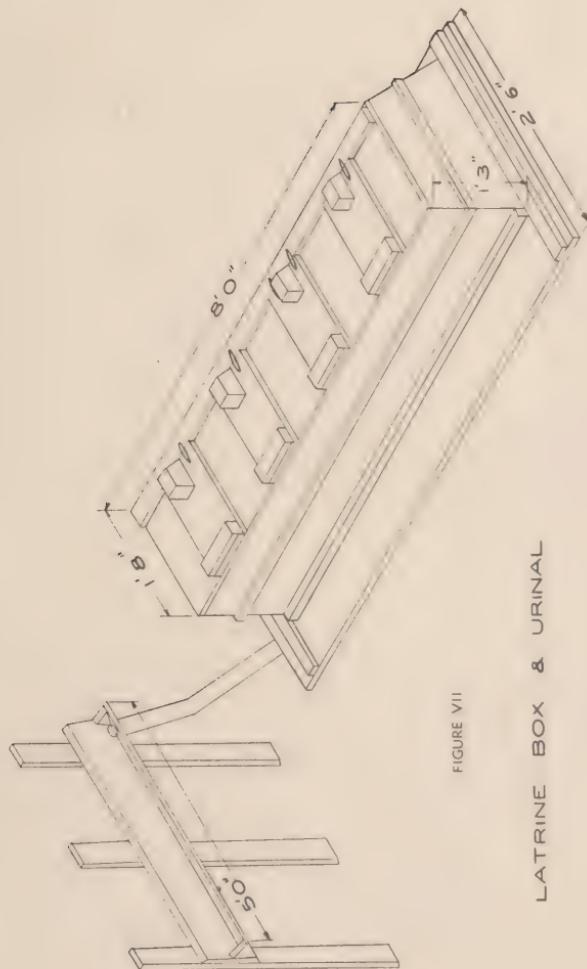
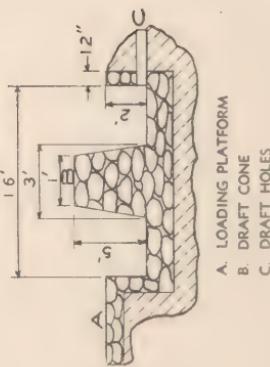
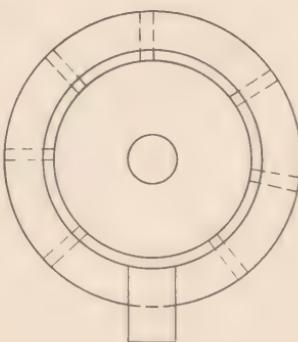


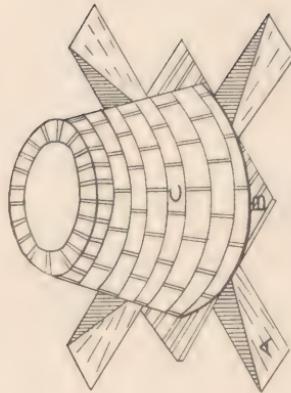
FIGURE VII  
LATRINE BOX & URINAL

**EMERGENCY INCINERATORS**  
**ROCK PILE INCINERATOR**      **BARREL & TRENCH INCINERATOR**

FIGURE VIII



- A. EARTH TRENCH (10 ft. long and 1 ft. wide)
- B. CORRUGATED IRON (5 ft. square)
- C. STACK (garbage can or a wooden barrel covered with clay can be substituted for brick.)



## *Appendix*

REPRINTS OF IMPORTANT STATE HEALTH LAWS



## HEALTH LAW

### Chapter 15. Acts 1891.

AN ACT to establish a State Board of Health, defining its powers and duties, providing a system of registration, and report of vital and sanitary statistics in connection therewith, and prescribing the duties of certain officers in relation thereto; providing for town, city and county boards of health prescribing penalties for the violation of the provisions thereof, fixing an appropriation for the expenses of the same, repealing acts in conflict therewith, and declaring an emergency.

(Passed, notwithstanding the Governor's veto, February 19, 1891.)

Chapter 15 of the Acts 1891 as amended by Chapter 142 of the Acts 1909 reads as follows:

SECTION 1. *Be it enacted by the General Assembly of the State of Indiana.* That a board is hereby created and established which shall be known under the name of the State Board of Health. It shall consist of five members as follows: Four members who shall be appointed by a board of appointment, consisting of the Governor, Secretary of State and Auditor of State; a majority of which shall constitute a quorum, who shall meet in the office of the Governor, within ten days after the passage of this act, and shall proceed to appoint two members of said Board of Health whose term of office shall expire on the first day of March, 1893, and two whose term of office shall expire on the first day of March, 1895. Thereafter two members shall be appointed biennially who shall hold their office for four years. Any vacancy in said Board of Health shall be filled by said state officers. Said Board of Health, when so appointed, shall elect a secretary, who shall be a physician, and shall be the health officer of the State, and shall hold his office for four years, who by virtue of his election shall be a member of said State Board of Health. [Acts 1891, Ch. 15, § 2, p. 15.]

SEC. 2. Before entering upon the discharge of their duties the members of said Board of Health shall each take and subscribe an oath of office before the Clerk of the Supreme Court, or any other officer authorized to administer an oath, that they will faithfully and honestly discharge the duties of said officers, which oath of office shall be filed in the office of the Secretary of State. [Acts 1891, Ch. 15, § 1, p. 15.]

SEC. 3. The secretary of the board shall keep his office at Indianapolis, and shall perform such duties as are prescribed by this act, or may be required by the board. He shall keep the custody of all papers, books, documents, and other property belonging to the board; he shall, so far as practicable, communicate with other state boards of health, and with the county boards of health within this State. He shall keep and file all reports received from such boards, and all correspondence of the office appertaining to the business of the board. He shall prepare blank forms of returns and such instructions as may be necessary and forward them to the secretaries of the several county boards of health throughout the State. He shall collect information concerning vital statistics, knowledge respecting diseases, and all useful information on the subject of hygiene and through an annual report and otherwise as the board may direct. shall disseminate such information among the people. [Acts 1891, Ch. 15, § 3, p. 15.]

SEC. 4. The Secretary of the State Board of Health shall be State Health Commissioner and the executive officer of the board. He shall keep the minutes of all meetings, make quarterly reports to his board, appoint and fix the salaries of all employees of the board, subject to the confirmation of said board. He shall be able-bodied, a licensed physician, thoroughly informed and experienced in hygiene and sanitation, skilled in the management of infectious and contagious diseases, temperate, not addicted to drugs and of good moral char-

acter; he shall give his entire time to the duties of his office, shall not engage in private medical practice nor engage actively in any business, and shall have and possess the statutory and common powers of a constable at law in all parts of the State in matters pertaining to the public health. [Acts 1891, Ch. 15, § 4, p. 15; 1909, Ch. 144, § 1, p. 342.]

#### **Meeting—Quorum—President—Reports.**

SEC. 5. The State Board of Health shall meet at least once in each quarter in the city of Indianapolis, and as often as they may deem necessary, and at such other times and places as they may deem expedient. A majority shall constitute a quorum for the transaction of business and a per diem of five dollars per day and expenses shall be allowed for the attendance upon meetings to each member, except the secretary. They shall choose one of their number for president, who shall serve for two years, unless his time of office as a member of the board shall sooner expire. They shall study the vital statistics and endeavor to make intelligent and profitable use of the collected records of death and sickness among the people. They shall have (be) the superior health board of the State, to which all other health boards are subordinate, and they shall have supervision of the system of registration of births, deaths, marriages and infectious diseases and they shall make up from time to time, such blank forms as they may deem necessary, for the collection, registration, and report of vital and sanitary statistics throughout the State. They shall annually on or before the first of December make a report to the Governor of their transactions and expenditures for the year ending September 30th, next preceding, with such suggestions with regard to legislation as they may deem important in reference to the public health. [Acts 1891, Ch. 15, § 15, p. 15; 1909, Ch. 144, § 2, p. 343.]

#### **Powers of State Board.**

SEC. 6. The State Board of Health shall have supervision of the health and life of the citizens of the State and possess all powers necessary to fulfill the duties prescribed in the statutes and to bring action in the courts for the enforcement of health laws and health rules. They shall have power to make sanitary inspections and surveys in all parts of the State and of all public buildings and institutions and after due notice to enter upon and inspect private property in regard to the presence of cases of infectious and contagious diseases and the possible cause and source of diseases; to establish quarantine and to order and execute what is reasonable and necessary for the prevention and suppression of disease; to close schools and churches and forbid public gatherings when deemed necessary to prevent and stop epidemics; to condemn and abate conditions causative of disease; to regulate and prescribe the character and location of plumbing, drainage, water supply, disposal of sewage, lighting, heating and ventilation and all sanitary features of all public buildings and institutions; to pass rules governing the duties of all health boards and all health officers, governing the collection of vital statistics, governing the hygienic disposal, transportation (and) disinterment of the dead, governing the specific features of quarantine and for the enforcement of the State health and registration laws, and any violation of said rules shall be punished by a fine of not less than five nor more than fifty dollars for each offense. Said rules shall bear the seal of said board and be attested by the secretary and they shall be promulgated by the State Board of Health by publishing the same in pamphlet or leaf form and supplying copies to all judges, all county auditors, all district prosecutors, all health officers, and any citizen asking for the same. County health commissioners shall make public announcement of the existence and receipt of said rules for the public benefit. The State Board shall also have power to discharge any county health commissioner or health officer in the State, either for intemperance, failure to collect vital statistics, obey rules, keep records, make reports, answer letters of inquiry of said board concerning the health of the people, or neglect of official duty. Such removal, however, shall not be made until five days' notice of the charge or charges shall have been mailed to him by said board, naming a time and place for hearing by the State Board of Health, not less than two weeks later than time of mailing such notice to said health officer: Provided, however, That any county health commissioner or other health officer so removed by the State Board of Health shall

have the right to appeal from the action of said board to the circuit or superior court of the county in which such health officer resides, and during the pendency of such appeal, such health officer may serve in his official capacity. Any health officer discharged as herein provided, shall be ineligible to hold the position of health officer for four years, and the vacancy shall be filled by the proper authority, as provided in this act. [Acts 1891, Ch. 15, § 6, p. 15; 1909, Ch. 144, § 3, p. 342.]

SEC. 7. The State Board of Health shall have supervision of the system of registration of births, deaths and marriages, as herein provided, and they shall make up such forms from time to time as they may deem necessary for the thorough registration and report of vital and sanitary statistics throughout the State. The secretary shall be superintendent of all such registration, and with consent of a majority of all members of said board, shall have the power to appoint and fix the compensation of any clerical force that may within his judgment be or become necessary for the making and keeping the records of said Board of Health. [Acts 1891, Ch. 15, § 7, p. 15.]

**Local Health Boards—How Chosen. (Repealed Chapter 217, Acts 1935.)**

SEC. 8. In every county there shall be a county health commissioner who shall be elected for the term of four years by the board of commissioners of each county, said election to be held on the first Tuesday in January, 1910, and every four (4) years thereafter. In every incorporated city there shall be a department of health composed of a board of three (3) commissioners, not more than two of whom shall be of the same political party and at least two (2) of whom shall be physicians well informed in hygiene and sanitary science, and who shall be appointed by the mayor of such incorporated city, for the term of four (4) years, and who shall be known as the city board of health. City boards of health shall appoint as a secretary, a physician who may or may not be one of their members, and who shall be the executive officer of the board: Provided, however, That in counties having a population of less than thirty thousand inhabitants, the board of county commissioners may upon agreement with the mayor or mayors of any or all the incorporated cities contained within said counties consolidate the city board or boards of health with the office of county health commissioner, and appoint for the term of four (4) years a single health officer, who shall also be known as the county health commissioner. In every incorporated town the board of town trustees shall constitute the board of health and shall appoint a secretary who shall be town health officer, and who shall serve for the term of four (4) years. All county health commissioners and city and town health officers shall give bond in such sum as the appointing power may determine. [Acts 1891, Ch. 15, § 8, p. 15; 1909, Ch. 144, § 4, p. 342.]

**Compensation. (Repealed Chapter 217, Acts 1935.)**

SEC. 9. Each county health commissioner shall receive as his compensation from the county which he serves, the sum of one and one-half cents per capita per annum, for each individual in the county. The secretary of each city board of health and each town health officer, shall receive as his compensation, from the city or town which he serves, the sum of two (2) cents per capita per annum, for each individual residing in such city or town. The population of counties, cities and towns for the purposes of this act, shall be determined by the method of the United States Census Bureau. Members of city boards of health other than the secretary, shall receive such compensation as their respective city councils may provide. When the city and county health officers are consolidated, as provided for in section eight (8) of this act, the county health commissioner so provided for, shall receive as his compensation, the sum of two (2) cents per capita, per annum for each individual in said county; the city or cities shall bear their proportionate share of such compensation and the county shall pay the remaining portion of such county health commissioner's salary: Provided, That no county health commissioner, secretary of city board of health or town health board secretary shall receive as his compensation more than fifteen hundred dollars (\$1,500.00) per annum, nor less than ten dollars (\$10.00) per annum. [Acts 1891, Ch. 15, § 9, p. 15; 1909, Ch. 144, § 5, p. 342.]

SEC. 10. The Vital Statistics Law, passed in 1907, takes the place of and repeals Section 10 of the Health Law of 1891. See Vital Statistics Law. [Acts 1891, Ch. 15, § 10, p. 15; 1909, Ch. 144, § 6, p. 342.]

**Powers and Duties.**

SEC. 11. Powers and duties of health officers. It shall be the duty of the State Health Commissioner and of county health commissioners and city and town health officers, within their respective jurisdictions to enforce the health laws, ordinances, orders and rules of their own and superior boards of health; to collect, record and report the vital statistics of their respective jurisdictions, to keep full and permanent records of their public health work, minutes of all meetings of their respective boards, and to make a monthly report of the work done by them and their deputies to their respective boards; said report, after approval to be made of permanent record. Reports of county health commissioners shall be made to the State Board of Health, and careful records of said reports shall be kept in county health record books.

The State Health Commissioner, all county health commissioners, and all city and town health officers, shall have power to make sanitary inspections and surveys of all public buildings and institutions, to enter upon and inspect private property, at proper times after formal notice, in regard to the possible presence, source and cause of disease, to establish quarantines and in connection therewith, to order what is reasonable and necessary for the prevention and suppression of disease, to close schools and churches and forbid public gatherings in order to prevent and stay epidemics, and in all reasonable and necessary ways to protect the public health. And it shall be unlawful, for any person, firm, company or corporation to institute, permit or maintain any conditions whatever, which may transmit, generate or promote disease; and it shall be the duty of all health commissioners and all health officers upon hearing in any way of the existence of said unlawful conditions within their respective jurisdictions, to order their abatement in writing, if demanded, and specifying particularly, wherein said conditions may transmit disease, and naming the shortest reasonable time for abatement. Upon refusal or neglect of any person, firm, company or corporation to obey said order, then the district prosecutor of the district wherein the offense occurs, upon receiving the information from said health commissioners or health officers, shall institute proceedings in the courts for enforcement.

Secretaries of city health boards shall have immediate control and direction of the city sanitary police force, of the city meat and dairy inspectors and of the city plumbing inspectors. He shall have charge of the municipal laboratory and he shall require and superintend, in relation to the sanitary condition of the city, such chemical, histological, bacteriological and pathological investigations as shall be deemed advisable by the board; he shall have charge of the office occupied by the commissioners and carry out and perform all such orders and directions as the board may require; he shall devote such time to the duties of his office as the commissioners shall deem necessary, for the proper performance of his duties. The city board of health shall have the entire management and control of the city hospital and dispensary, if any there be, and they shall appoint the superintendent of such hospital and dispensary. [Acts 1891, Ch. 15, § 11, p. 15; 1909, Ch. 144, § 7, p. 342.]

**Expenses—How Paid. (Repealed Chapter 217, Acts 1935.)**

SEC. 12. All expenses legally incurred for the work of protecting the public health outside the corporation of cities and towns shall be paid by the county treasurers out of the health appropriations made by county councils, upon warrants from county health commissioners, based upon sworn vouchers, said vouchers to have attached itemized bills for the amount for which they are drawn; and the expenses legally incurred for the protection of the public health inside the corporation of cities and towns shall be paid out of the treasuries of cities and towns in which the work is done; and townships shall not be held for the payment of public health expenses, but the cost of the care of the paupers, whether sick or well, shall be upon the townships. [Acts 1891, Ch. 15, § 12, p. 15; 1909, Ch. 144, § 8, p. 342.]

SEC. 13. The sum of five thousand dollars per annum, or so much thereof as may be necessary, is hereby appropriated to pay the salary of the secretary and other necessary expenses of the State Board of Health, according to the provisions of this act; and the expenses of the State Board of Health shall in no event exceed the amount herein appropriated. [Acts 1891, Ch. 15, § 13, p. 15.]

**Penalty.**

SEC. 14. Any person or persons or the officers of any corporation, except as penalties are provided in other sections of this act, who shall violate any of the provisions of this act, shall be deemed guilty of a misdemeanor, and upon conviction thereof, shall be fined in any sum not less than ten nor more than one hundred dollars. [Acts 1891, Ch. 15, § 14, p. 15; 1909, Ch. 144, § 9, p. 342.]

**Repeal.**

SEC. 15. (Section 10.) All laws and parts of laws in conflict with any of the provisions of this act are hereby repealed: Provided, however, That nothing contained in this act shall effect (affect) in any manner, whatever, that part of Chapter 145, Acts 1907, which relates to cities of the first class. [Acts 1891, Ch. 15, § 14, p. 15.]

## Chapter 2. Acts 1936.

AN ACT accepting the provisions and benefits of the act of Congress known as the "Social Security Act," designating the treasurer of state as the officer to receive, safeguard and disburse such federal funds as may be received thereunder, and authorizing the state board of health to cooperate with the federal government and with the several municipal corporations and health districts of the state in the enforcement and administration of certain designated provisions of the "Social Security Act," and prescribing its rights, powers and duties in connection therewith, and declaring an emergency.

**United States Department of Labor—State Board of Health—Cooperation.**

SECTION 1. *Be it enacted by the general assembly of the State of Indiana,* That the state board of health shall cooperate with the children's bureau of the United States department of labor in:

**Mothers and Children.**

(a) Extending and improving services for the promotion of the health of mothers and children, especially in rural areas and in areas suffering from severe economic distress; and

**Maternal and Child Health.**

(b) Providing for the extension and improvement of maternal and child health services administered by the respective municipal corporations and health districts of the state; and

**Demonstration Services.**

(c) Developing demonstration services in needy areas and among groups in special need; and

**Group Cooperation.**

(d) Cooperating with the respective medical, dental, nursing, educational and welfare groups and organizations of the state, and

**Plan Development—Federal "Social Security Act."**

(e) Developing such plans as may be found necessary to effectuate the services contemplated in this section and to comply with the rules and regulations of the children's bureau of the United States department of labor issued and prescribed in conformity with and by virtue of the federal "Social Security Act."

**United States Public Health Service—State Board of Health—Cooperation.**

SEC. 2. The state board of health shall cooperate with the public health service of the department of the treasury of the United States Government in:

**Public Health Service.**

(a) Establishing and maintaining adequate public health services, including the training of the proper personnel to administer the public health work of the state and of the respective municipal corporations and health districts thereof; and

**Disease Investigation—Sanitation.**

(b) Conducting investigations relating to disease and the problems of sanitation; and

**Plan Development—Federal “Social Security Act.”**

(c) Developing such plans as may be found necessary to effectuate the services contemplated in this section and to comply with the rules and regulations of the public health service of the department of the treasury of the United States government issued and prescribed in conformity with and by virtue of the federal “Social Security Act.”

**State Board of Health—Reports—Form—Contents.**

SEC. 3. The state board of health shall make such reports, in such form and containing such information as the children's bureau of the department of labor or the public health service of the department of the treasury of the United States government may, from time to time, require, and shall comply with such provisions as any such department may, from time to time, find necessary to assure the correctness and verification of such reports.

**“Social Security Act”—Acceptance by State—Observance.**

SEC. 4. The State of Indiana hereby accepts all of the provisions and benefits of the “Social Security Act,” enacted by the Congress of the United States and approved on August 14, 1935, which, by the provisions of this act, the state board of health is authorized to administer, and will observe and comply with all of the requirements of the provisions of such act and the several amendments thereto and the rules and regulations issued thereunder and in conformity therewith.

**“Social Security Act” Appropriations—Receipt by State—Custody—Administration of Funds—Disbursement—Treasurer of State.**

SEC. 5. The treasurer of state is hereby designated as the custodian of any and all money which may be received by the State of Indiana, from any appropriations made by the Congress of the United States for the purpose of cooperating with the several states in the enforcement and administration of the provisions of the federal “Social Security Act,” which, by the provisions of this act, the state board of health is authorized to administer, and the treasurer of state is hereby authorized to receive such money, pay it into the proper account of the general fund of the state treasury, provide for the proper custody thereof and to make disbursements therefrom upon the order of the state board of health, upon which the warrant of the auditor of state shall be issued.

**Money From United States—General Fund—State Treasury.**

SEC. 6. The money received from the federal government by the treasurer of state to defray the expenses and pay the claims and obligations incurred in the administration of the respective provisions of the federal “Social Security Act,” which, by the provisions of this act, the state board of health is authorized to administer, shall be paid into the respective accounts of the general fund, of the state treasury hereinafter designated:

**Maternal and Child Health Account.**

(a) All money received as aid for the promotion of the health of mothers and children shall be paid into an account of the general fund which shall be known as the maternal and child health account.

**Public Health Service Account.**

(b) All money received as aid for the establishment and maintenance of public health services shall be paid into an account of the general fund which shall be known as the public health service account.

**Vouchers—State Board of Health—Duty.**

SEC. 7. All vouchers issued for the disbursement of any money from the maternal and child health account and the public health service account shall be issued on order of the state board of health and shall be signed by the secretary of the state board of health.

**Agent for Cooperation With Government—State Board of Health Designated.**

SEC. 8. The state board of health is hereby designated as the state agency to cooperate with the federal government in the administration of the provisions of Part 1 of Title V and of Title VI of the federal "Social Security Act." The state board of health is hereby authorized and directed to cooperate with the proper departments of the federal government in the enforcement and administration of the respective provisions hereinbefore prescribed, of the federal "Social Security Act," and any amendments thereto and the rules and regulations issued thereunder and in compliance therewith, in the manner hereinafter prescribed in this act or as otherwise provided by law.

**Cost of Administration—Re-Allocation of Appropriation to State Board of Health—Budget Committee—Duty.**

SEC. 9. (a) For the purpose of providing for the financial participation by the state board of health with the respective departments and bureaus of the federal government in the administration of the respective health services of this state, as provided in this act, the state budget committee, on recommendation of the state board of health, is hereby authorized to re-allocate any funds which have been appropriated for the use of the state board of health for the unexpired portion of the fiscal biennium ending on June 30, 1937, so that an adequate amount of money may be set aside for the respective purposes of this act, to secure such funds as may be allocated to this state, for such purposes, by the federal government. The money so set aside by the action of the budget committee is hereby appropriated and shall be used exclusively for the purpose of administering the provisions of this act, in cooperation with the federal government and the several health districts and municipal corporations of the state, and in compliance with the requirements of this act and of the federal law and the rules and regulations issued thereunder and in compliance therewith.

**Additional Appropriations—Specific—Purpose of.**

(b) In addition to the money re-allocated and appropriated, as hereinbefore provided, the sum of five thousand dollars, or so much thereof as may be necessary, is hereby appropriated out of the general fund of the state, for the fiscal year ending June 30, 1936, and the sum of fifteen thousand dollars, or so much thereof as may be necessary, is hereby appropriated out of the general fund of the state, for the fiscal year ending June 30, 1937. The respective sums hereby appropriated shall be expended by the state board of health for the purpose of administering the provisions of this act, in cooperation with the federal government and the several health districts and municipal corporations of this state, in compliance with the requirements of this act and of the federal law and the rules and regulations issued thereunder and in compliance therewith.

**Appropriation—General—Purpose.**

SEC. 10. In addition to the funds appropriated and allocated by the provisions of section 9 of this act, a sufficient amount of money is hereby appropriated for the unexpired portion of the biennial period ending June 30, 1937, out of any money in the general fund of the state treasury not otherwise appropriated, to defray any expenses which may be necessarily incurred in discharging the duties and functions of the state board of health in the performance of its duties as prescribed in this act, and for the purpose of securing

such federal funds as may be available for any of such health services, subject to the approval of the state budget committee.

**Employees—Municipal Corporations—Cooperation with—Expense—Appor-tionment.**

SEC. 11. The regular employees of the state board of health may be assigned to the performance of the duties prescribed in this act either on a full-time or on a part-time basis, or such additional qualified personnel may be employed as, in the judgment of the state board of health and the governor, may be necessary to administer the provisions of this act. The state board of health is hereby authorized to enter into cooperative agreement with the health authorities of any municipal corporation or health district of the state by virtue of which such assistants, investigators and employees may be appointed as are found to be necessary and qualified to cooperate with the state board of health and the federal government in conducting the health work in such municipal corporation or health district, in conformity with the provisions of this act and of the federal "Social Security Act" and the rules and regulations issued in conformity therewith. Agreements may be made by virtue of which any two or more of such municipal corporations or health districts may co-operate with the state board of health, as hereinbefore provided, and the expenses incurred in carrying on such work shall be allocated between or among such municipal corporations and health districts and the state board of health as may be mutually agreed upon. All such appointments shall be made subject to the approval of the state board of health, and the state board of health is hereby authorized to pay such proportionate share of the salaries and expenses of such assistants, investigators and employees as may be agreed upon by the state board of health and the health authorities of such municipal corporation or health district, and as prescribed in the cooperative agreements entered into for that purpose.

**Treatment—Objections—Discrimination—Quarantine.**

SEC. 12. No official, agent, or representative of the state or of any of its political subdivisions or municipal corporations, or of any board, bureau, district, welfare group, or organization referred to in this act, or of the federal public health service, when cooperating with any such official, agent, or representative, shall have any right to compel any person or minor to submit to any medical examination or treatment, when such person, parent, or guardian objects to the same on religious grounds, or to permit any discrimination against such minor or person on account of the same. Nothing contained in this section shall be so construed as to abridge the powers of the state or any local board of health or other public health authority to establish quarantine, as provided by law, for the purpose of preventing the spread of communicable disease.

**Municipal Corporation Defined.**

SEC. 13. The term "municipal corporation", as used in this act, means and includes any county, township, city, town or school corporation which has made or which may hereafter make any provisions for conducting any kind of health work therein of such character as to be qualified to comply with the provisions of this act.

**Emergency Declared.**

SEC. 14. Whereas an emergency exists for the immediate taking effect of this act, the same shall be in full force and effect from and after its passage.

**Chapter 217. Acts 1935.**

AN ACT providing for the appointment by the county commissioners, upon approval by the State Board of Health, of county health officers; for the appointment by city boards of health, upon approval by the State Board of Health, of city health officers; for making it permissible for boards of county commissioners and common councils to provide for the appointment of full-time health personnel; and for maintenance of the same.

(S. 233. Approved March 11, 1935)

*SECTION 1. Be it enacted by the General Assembly of the State of Indiana,*  
That it shall be the duty of the board of county commissioners of each county  
of this state, with the approval of the State Board of Health, to appoint a  
regularly licensed physician who shall be known as the county health officer.  
Such county health officer shall be legally qualified to practice medicine, suit-  
ably trained in sanitary science, and his qualifications shall be satisfactory to  
the State Board of Health. The county health officers in office on the date this  
act becomes effective, shall, unless sooner removed, continue to serve until their  
respective terms expire, and until their successors have been appointed and  
have qualified. Beginning on the first day of January, 1938, and on the first day  
of January of each fourth year thereafter, a county health officer shall be ap-  
pointed, as aforesaid, to serve for a term of four years, unless sooner removed  
by the appointing authority, or by the State Board of Health. Should the State  
Board of Health fail to approve the nomination of the person recommended  
for county health officer, or should the State Board of Health, or the appointing  
authority, remove any such officer, another nomination other than the person  
removed or rejected, shall at once be made to the State Board of Health by  
the appointing authority. The county health officer shall receive an annual  
salary of three cents per capita, based on the population of the county, less the  
population of any city or cities located therein and having separate health offi-  
cers, except that in no case shall he receive less than two hundred dollars or  
more than eighteen hundred dollars per year. The salary and the actual neces-  
sary operating expenses of the county health officer shall be paid out of the  
treasury of the county. The county health officer shall enforce the health laws  
of the state and shall enforce all the rules and regulations of the State Board  
of Health. Any failure to comply with any of the provisions of this section shall  
constitute a misdemeanor, and upon conviction thereof, the offender shall be  
fined not more than one hundred dollars.

*SEC. 2. It shall be the duty of the mayor of each city of the second class*  
to appoint a city board of health, consisting of four members, not more than  
two of whom shall be adherents of the same political party, and not less than  
three of whom shall be regularly licensed physicians, well informed in hygiene  
and sanitary science. The members of the present city boards of health, unless  
sooner removed, shall serve until the first day of January, 1939, at which time,  
unless a city board of health be sooner appointed, as herein provided, four  
members of the city board of health shall be chosen, one for a term ending  
December 31, 1940; one for a term ending December 31, 1941; one for a term  
ending December 31, 1942; and one for a term ending December 31, 1943. At  
the expiration of the respective terms, appointment shall be made to fill the  
vacancy for the following four years. The salary of the members of the city  
board of health shall be determined and fixed by the common council.

*SEC. 3. It shall be the duty of the mayor of each city of the third, fourth,*  
and fifth classes to appoint a city board of health, consisting of three members,  
not more than two of whom shall be of the same political party, and not less  
than two of whom shall be physicians well informed in hygiene and sanitary  
science. The members of the city boards of health in office at the time this  
act takes effect shall, unless sooner removed, serve until January 1, 1939, at  
which time, unless a board be sooner appointed, three members shall be  
chosen, one for a term ending December 31, 1941; one for a term ending  
December 31, 1942; and one for a term ending December 31, 1943. At the  
expiration of the respective terms of each member, an appointment to fill the  
vacancy for the following four years shall be made. The salary of the mem-  
bers of the city board of health shall be determined and fixed by the common  
council.

*SEC. 4. It shall be the duty of the city board of health of each city, ex-*  
cept cities of the first class, with the approval of the State Board of Health, to  
appoint a regularly licensed physician, who shall be known as the city health  
officer. Such city health officer shall be legally qualified to practice medicine,  
suitably trained in sanitary science, and his qualifications shall be satisfactory  
to the State Board of Health. The city health officers who are in office on the

date when this act becomes effective, shall, unless sooner removed, continue to serve until their respective terms expire, and until their successors have been appointed and have qualified. Beginning on the first day of January, 1939, and on the first day of January of each fourth year thereafter, a city health officer shall be appointed, as aforesaid, to serve for a term of four years, unless sooner removed by the appointing authority, or by the State Board of Health. Should the State Board of Health fail to approve the nomination of the person recommended for city health officer, or should the State Board of Health, or the appointing authority, remove any such officer, another nomination, other than the person removed or rejected, shall be made to the State Board of Health at once by the appointing authority. The city health officer shall receive an annual salary of two cents per capita, based on the population of the city, except that in no case shall he receive less than one hundred dollars. The salary and actual necessary operating expenses of the city health officer shall be paid out of the treasury of the city. The city health officer may be a member of the city board of health, or may be in the employ of the city board of health, in which case he shall not be considered a member. He shall serve as the secretary of the board when the board is in session, and as the executive officer of the board when the board is not in session. The city board of health shall exercise all the powers provided by law and enforce all the rules and regulations of the State Board of Health. Any failure to comply with any of the provisions of this section shall constitute a misdemeanor, and upon conviction thereof, the offender shall be fined not more than one hundred dollars.

SEC. 5. The county commissioners of any county, or the common council of any city shall have the power and authority to provide for a full-time county or city health officer, and for the expenses of his office, and for that purpose the county council or common council, as the case may be, shall annually make the necessary appropriation in the same manner as appropriations are made for other county or city offices. Every such health officer so appointed shall be a regularly licensed physician, and shall be nominated and appointed in the manner provided for in section 1 and section 2 of this act. He shall devote his entire time to the duties of his office in protecting and supervising the general health and sanitation of his jurisdiction, as provided by law, and shall perform such other duties in relation thereto as may be prescribed by law, or by ordinance of the common council, or by order of the State Board of Health. In the event that the county commissioners of a county or the common council of a city shall desire to establish a full-time health office and appoint a full-time health officer and the necessary personnel, it shall have the power, in its discretion, to declare an emergency and to establish a full-time health office at any time it may deem advisable.

SEC. 6. The county commissioners of any county or the common council of any city which has not provided for a full-time health officer, may provide for a full-time public health nurse, or other health personnel and the expenses of such office, and for that purpose the county council or common council, as the case may be, shall annually make the necessary appropriation in the same manner as appropriations are made for other county or city offices. Such public health personnel shall be legally qualified, suitably trained in sanitary science, and their qualifications shall be satisfactory to the State Board of Health. They shall be nominated in the manner provided in sections 1 and 2 of this act. They shall devote their entire time to the duties of their respective offices in protecting and supervising the general health and sanitation of their jurisdiction and shall perform such duties in relation thereto as may be prescribed by the rules and regulations of the State Board of Health.

SEC. 7. In a county which has a full-time county health officer, the jurisdiction of the county health officer shall be coextensive with the county, except as hereinafter provided, and shall include every city and town located within such county which does not have a full-time health officer of its own, but shall not include any city therein which has a full-time health officer. But in a county which has a part-time officer only, the jurisdiction of such part-time health officer shall not extend to any city therein having a full-time or part-time health officer of its own. This provision shall not in any way prohibit the same officer

from serving both as part-time county health officer and as part-time city health officer, provided his aggregate salary from all such sources be not more than eighteen hundred dollars. All boards of health and health officers shall be subordinate to the authority of the State Board of Health, and subject to all orders of the State Board of Health, which may, if deemed expedient, act through the county health officer or city board of health.

SEC. 8. Any two or more counties may combine, by vote of their respective boards of commissioners, to cooperate with each other in the establishment of a full-time health district, and may participate in the employment of trained health officers and other agents or public health personnel and in the installation and maintenance of common equipment. Whenever such counties shall decide so to do, all expenses incurred shall be apportioned between or among the counties in proportion to the population of such counties as determined by the last federal census. Such arrangement and the general plan of cooperation, as well as the principal health officer, executive agent, or other personnel employed by such counties, shall first have been approved by the State Board of Health.

SEC. 9. When, in the opinion of the State Board of Health, any local health authority shall fail or refuse to enforce the laws and regulations necessary to prevent and control the spread of communicable or infectious disease declared to be dangerous to the public health, or when, in the opinion of the State Board of Health, a public health emergency exists, the State Board of Health may enforce the rules and regulations of the State Board of Health within the territorial jurisdiction of such local health authorities, and for that purpose shall have and may exercise all the powers given by law to local health authorities. All expense so incurred shall be a charge against the respective counties or cities. In such cases the failure or refusal of any local health officer or local health board to carry out and enforce the lawful orders and regulations of the State Board of Health shall be sufficient cause for the removal of such local health officer or the members of such local health board from office, and upon such removal the proper county or city authorities shall at once nominate a successor, other than the person or persons removed, as provided by law.

SEC. 10. Upon the approval by the county commissioners of the county or the common council of a city, the health officer may receive gifts, donations, or other financial assistance from private individuals, corporations, or the state or federal government, provided the conditions under which the grant is made are fully understood and have the approval of the State Board of Health.

SEC. 11. The board of commissioners of any county or the common council of any city may avail itself of the provisions of this act, at any time, by declaring the existence of an emergency and making an appropriate entry to that effect on the records of such board or council. Unless such an emergency be declared, the health officers and the health departments of counties shall continue until January 1, 1938, and the health officers and health departments of cities shall continue until January 1, 1939, under the laws now in force. Beginning with the first day of January, 1938, there shall be a part-time health officer in every county, and beginning with the first day of January, 1939, there shall be a part-time health officer in every city of this state, who shall be appointed and shall possess the powers hereinbefore prescribed in this act. As soon as a part-time county health officer is appointed under the provisions of this act, such officer shall have jurisdiction in all towns of such county and the office of town health officer shall be thereupon abolished, but until a part-time county health officer is appointed, the health officer of each town within such county shall continue in office and shall perform his duties as such under the laws now in force. Nothing contained in this section shall be so construed as to prohibit the board of commissioners of any county or the common council of any city from declaring an emergency at any time and establishing a full-time health office and appointing a full-time health officer, as hereinbefore provided in this act.

SEC. 12. All laws and parts of laws in conflict with any of the provisions of this act are hereby repealed. But this act shall not be construed to compel any person or minor to submit to any medical examination or treatment under the authority of this act, when such persons, parent or guardian objects to the same on religious grounds, or to permit any discrimination against such minor or person on account of the same.

## VITAL STATISTICS LAW

### Chapter 239 Acts 1913.

AN ACT to amend section one (1), two (2), and three (3) of an act entitled "An act to collect accurate records of deaths, births, contagious diseases and marriages, prescribing the duties of the State Board of Health and of all health officers, in relation thereto, providing penalties for the violation of the provisions of this act, and repealing all acts in conflict," approved March 9, 1907.

(S. 279. Approved March 14, 1913.)

#### **State Board of Health—Record of Deaths, Births, etc.**

SECTION 1. *Be it enacted by the General Assembly of the State of Indiana.* That section one (1) of the above entitled act be amended to read as follows: Section 1. Be it enacted by the General Assembly of the State of Indiana, That it shall be the duty of all physicians, mid-wives and all other persons who are now permitted or entitled to treat diseases or deformity or practice obstetrics in the state to report upon blank forms supplied by the State Board of Health all deaths and births which may occur under their supervision, and also all cases of contagious and infectious diseases which may occur under their supervision and which are listed as reportable in the rules of the State Board of Health. The reports of deaths and cases of infectious diseases shall be made immediately and a certificate of death shall be filed and a burial or removal permit issued prior to any disposition of the body. Reports of deaths, births and cases of such infectious and contagious diseases as are listed in the rules of the State Board of Health, which occur in cities and towns, shall be made to health officers of said cities and towns, and when they occur in the country outside of cities and towns, they shall be reported to the county health commissioner or his deputies; but reports of deaths occurring outside of cities and towns may be made to the health officer located nearest to the place where the death occurs; and said health officer or commissioner, if the certificate of death be properly made out, shall issue a burial permit, which permit shall be valid in all parts of the state. Upon the reporting of any death occurring outside of cities and incorporated towns to the nearest health officer, other than the county health commissioner, of the county wherein said death occurred, said certificate of death shall be sent immediately for record, by said health officer to the county health commissioner of the county wherein said death occurred. When any death, birth or case of listed infectious or contagious disease may occur with no physician or midwife in attendance, then said death, birth or case of infectious or contagious disease shall be reported by the householder or other person having said death, birth or case of infectious or contagious disease in charge, to the health officer having jurisdiction, or his deputy; and the officer to whom the report is made shall make inquiry and inspection, and in the case of death, if he finds no evidence of death by violence or criminal practice, he may fill out the certificate of death and grant a burial permit; but if evidence of death by violence or criminal practice is found, he shall refer the case to the coroner, who shall make due investigation according to law. Any death coming under the supervision of any coroner, shall be by him reported upon official death certificate blanks to the health officer having jurisdiction within three days after the inquest is held, and such death shall not be reported by any other person. Any death or birth occurring under the supervision of any superintendent or head of any institution shall be immediately reported by him upon official certificates to the proper health officer.

Stillbirths of seven months' gestation and over shall be reported as both

births and deaths, and all reports of death, births, contagious or infectious diseases as herein commanded shall be upon blanks furnished by the State Board of Health. It shall be the duty of the clerk of the circuit court of each county to report to the county health commissioner on or before the fourth day of each month the number of marriages for the preceding month, with such facts relating thereto as may be provided for on blanks furnished to such clerk from the State Board of Health. All persons authorized to perform marriages shall report all marriages performed by them within three days after their occurrence to the clerk of the circuit court of the county wherein the marriage license was issued, and any one failing to so report shall be fined five dollars for each offense. All records of deaths, births and cases of contagious and infectious diseases shall be kept by health officers in record books, the forms of which shall be supplied by the State Board of Health. Any physician or mid-wife refusing or neglecting to make death, birth and infectious or contagious disease reports as herein provided, or who shall knowingly make a false report thereof, shall, upon conviction, be fined for the first offense in any sum not less than ten nor more than fifty dollars, and any physician or midwife who is convicted the second time for the violation of any of the above provisions shall be fined not less than fifty or more than one hundred dollars, and any physician or midwife who is convicted the third time for the violation of any of the above provisions shall be fined one hundred dollars.

Householders and others made responsible in this act and failing to report as herein provided, or who shall furnish false information for the purpose of an incorrect certificate or report, shall, upon conviction, be fined not less than ten or more than fifty dollars for each offense. It shall be unlawful for any undertaker, sexton, or other person to bury, cremate or otherwise dispose of any human body until he has received a permit to do so from a health officer; and no such permit shall be issued by any health officer or deputy until there has been delivered to him a certificate of death written in unfading ink or indelible pencil, and completely and accurately filled out by the proper person. In the event of a burial or other disposal of a dead human body without a permit as herein provided, the offending person, upon conviction, shall be fined not less than five or more than one hundred dollars, and if the remains are buried, the coroner of the county in which the illegal burial or other disposal occurs shall disinter or otherwise secure the remains, hold an inquest and within three days thereafter make a return of his findings upon official blanks to the officer having jurisdiction. The cost of said inquest shall be borne by the county, but the same may be recovered in the courts of the county from the person or persons who are responsible for such illegal burial or other disposal of said human body.

#### **Vital Statistics—Tabulation and Use.**

SEC. 2. That section two (2) of the above entitled act be amended to read as follows: Sec. 2. It shall be the duty of the State Board of Health to collect and tabulate the vital statistics, to study them and endeavor to make intelligent and profitable use of the same for sanitary purposes and the benefit of the people. They shall have supervision of the system of registration of deaths, births, infectious and contagious diseases, and they shall make up from time to time such blank forms as they may deem necessary for collection, registration and report of vital and sanitary statistics throughout the state. They shall, upon request, furnish any applicant a certified copy of the record of any birth or death registered under the provisions of this act, and such copy of the record of a birth, or death when properly certified by the secretary of said board to be a true copy thereof, shall be *prima facie* evidence in all courts and places of the facts therein stated. They shall have the power to pass rules governing the duties of all health boards and health officers, governing the hygienic disposal, transportation and disinterment of the dead and for the enforcement of this act, and any violation of said rules shall be punished by a fine of not less than five nor more than fifty dollars for each offense.

The State Board of Health shall make an annual report of all vital statistics for each calendar year to the Governor, the same to be published with their report of transactions and expenditures for the fiscal year by the commissioners of the public printing and stationery.

#### **Inmates of Public Institutions—Record Kept.**

SEC. 3. That section three (3) of the above entitled act be amended to read as follows: Sec. 3. It shall be the duty of the superintendent or of any person or persons having charge of hospitals, poor asylums, lying-in or other institutions, public or private, to which persons resort for treatment of disease, confinement, or are committed by due process of law, to make and keep on file a record of all personal and statistical particulars relative to the inmates of such institutions, as may be required by the State Board of Health, and any such superintendent, person or persons failing to make or keep such record, shall be liable to punishment by fine of not less than five nor more than fifty dollars for each offense.

#### **Repeal.**

SEC. 4. All laws or parts of laws coming in conflict with this act are hereby repealed, except that this act shall not be construed to repeal, affect or modify any of the provisions of an act entitled "An Act to prevent infant blindness caused by the preventable disease known as ophthalmia neonatorum," approved March 4, 1911.

### **Chapter 24, Acts 1941.**

AN ACT entitled an act authorizing the circuit courts of the state to hear and determine the time and place of birth of a person on petition, giving of newspaper notices, providing for witnesses as to residence, and certified copy as evidence and declaring an emergency.

(H. 47. Approved February 19, 1941.)

#### **Courts—Authority to Determine Time and Place of Birth—Filing of Petition.**

SECTION 1. *Be it enacted by the General Assembly of the State of Indiana,* That on application filed by any person in writing who has been a bona fide resident of the county where such application is filed for more than one year to establish time and place of birth of the applicant the circuit court or superior court where such superior courts are established and held outside of the county seat of the county where located, such court shall have the power and right to hear and determine the matter set out in said petition and application without the intervention of a jury.

#### **Notice.**

SEC. 2. Upon such application being filed in any such court, as above designated, in this state, to establish time and place of birth of an individual the clerk of such court shall give notice thereof by one insertion in some newspaper of general circulation, printed and published in the county where the application is filed, except that in counties containing first class cities such notice shall be published in a daily newspaper published at least six days each week, or, if no newspaper be printed or published therein, then, in a newspaper printed and published nearest thereto in some adjoining county.

#### **Proof of Publication—Hearing—Determination by Court.**

SEC. 3. Proof of publication, as required by this act, shall be made by filing a copy of such published notice, verified by the affidavit of the publisher, or some one in his behalf with the clerk of such court and when one week notice has been so given by publication properly made, the court may hear and determine said application and make and enter a declaration of status of petitioner as to the time and place of his birth.

#### **Jurisdictional Requirement.**

SEC. 4. Before the court shall have jurisdiction to determine such petition it shall be necessary for the applicant to show by at least two householders of the county and to the satisfaction of the court that the applicant is and has been a bona fide resident of the county for at least one year prior to the filing of the application in said cause.

**Decree of Court—Certified Copy—Effect.**

SEC. 5. A copy of the decree of such court, certified under the seal of the clerk of such court, shall be taken and accepted as *prima facie* evidence in any court or board in this state to show time and place of birth of the individual stated therein.

**Clerk of Court—Making of Record.**

SEC. 6. The clerk of such court shall keep an index record to be known as birth certificate record and enter therein the proper index of such judgment and decree.

**Costs—Paid by Applicant.**

SEC. 7. The costs of such proceeding shall be charged to and paid by the applicant but no costs belonging to the county shall be taxed or charged in said proceeding.

**Emergency.**

SEC. 8. That whereas an emergency exists for the immediate taking effect of this act, the same shall be in full force and effect from and after its passage.

## QUARANTINE LAW

### Chapter 83. Acts 1903.

AN ACT to provide for the restriction of dangerous communicable diseases, prescribing penalties for the violation thereof, repealing all laws and parts of laws in conflict herewith, and declaring an emergency.

(H. 7. Approved March 4, 1903.)

SECTION 1. *Be it enacted by the General Assembly of the State of Indiana,* That any physician called upon to attend a sick person and who finds the cause of such sickness to be of a contagious or infectious character, or if the disease is ordered to be reported in the rules of the State Board of Health, such physician shall immediately report the facts to the secretary of the board of health having jurisdiction.

SEC. 2. Whenever any person knows or has reason to believe that any member of his or her family or household (boarder, roomer, or visitor), has either smallpox, diphtheria, membranous croup, scarlet fever, measles, or any other communicable disease, listed in the rules of the State Board of Health, he or she shall immediately, from the time the existence of the disease is known, if no physician is in attendance, give notice thereof to the local health officer of the town or city in which the disease occurs, or the health officer, if the case is without the corporation of cities and towns, and such notice shall be given either verbally or by written communication, mailed or delivered to such health officer or board.

SEC. 3. The health officer having jurisdiction, upon being notified in any way of the existence of either of the diseases named in Section 2, or of other communicable diseases which are or may be listed in the rules of the State Board of Health, shall immediately, in person or by deputy, quarantine the infected house, rooms or premises, so as effectually to isolate the case or cases, and the family, if necessary, in such manner and for such time as may be necessary to prevent transmission of the disease; and, whenever a house, tenement or room is placed in quarantine, a placard shall be posted in a conspicuous position, giving the name of the disease, in letters not less than two inches long, and also containing the following quarantine order: "All persons are forbidden to enter or leave these premises without special permit from the health officer having jurisdiction, and all persons are forbidden to remove or mutilate this card, or to in any way interfere with this quarantine without orders from said health officer," and when visiting persons afflicted with smallpox, diphtheria, membranous croup, scarlet fever, or other infectious disease named in the rules

of the State Board of Health, all physicians and health officers shall take such precautions as are directed in the rules of the State Board of Health covering the matter. Any person who shall violate any of the provisions of this section shall, upon conviction thereof in any court of this State, be liable to a fine of ten to fifty dollars, to which may be added imprisonment in the county jail not exceeding six months.

SEC. 4. Immediately after the recovery or death of any infected person or persons, the health officer having jurisdiction shall cause the infected premises and infected persons to be thoroughly disinfected and cleansed according to the methods prescribed in the rules of the State Board of Health, after which the said premises and said persons shall be released from quarantine.

SEC. 5. Parents, guardians or persons having custody of any child or children, shall not permit such child or children, if infected with any communicable disease, and if it or they have been exposed to any communicable disease, to attend any public or private school, or appear in public in any way, and all school teachers, public, private or parochial, shall exclude from their schools all such children unless a written permit to attend is given by the health officer having jurisdiction.

SEC. 6. It shall be the duty of the secretary or a representative of all boards of health, to attend a meeting of the State Board of Health, when requested by the latter, for consultation or conference concerning the restrictions and prevention of contagious and infectious diseases, or for the consideration of other important sanitary matters, and the expenses of the delegate shall be paid by the board appointing him, out of the general funds of the county, incorporated city or town where such board is established.

SEC. 7. The State Board of Health and county board of health and any local board of health, or a majority thereof, shall have power to remove or cause to be removed from any hotel, boarding house, boarding school or other building of like character, tenement or apartment houses, to a proper place designated by such board, persons sick with any contagious, infectious or pestilential disease, and such board shall also have power to remove or cause to be removed to a proper place to be so designated, all things and articles within the jurisdiction of such boards, which, in their opinion, shall be infected with any matter likely to communicate disease to the inhabitants of any county or other municipality of this state, and said boards may destroy, or cause to be destroyed, such articles or things, when in their opinion the safety of the public health requires it, for which the board of health having immediate jurisdiction shall pay the owner thereof the actual cash value out of the general funds of the town, city or county wherein the same is established: Provided, however, That no person shall be removed under this act, except after examination and determination by two physicians in good standing and practice that such person is sick with a contagious, infectious or pestilential disease. The boards of health above mentioned may, by resolution, delegate the authority herein conferred to any health officer in the employ of such boards.

SEC. 8. Whenever a health officer shall know or suspect or be informed of the existence of any communicable disease, dangerous to the public health and there be no physician in attendance, or should any physician while in attendance fail or refuse to immediately report such case to the health officer, it shall be the duty of such health officer or deputy to examine such case or cases of alleged communicable disease dangerous to the public health, and if, in the judgment of such health officer, such afflicted person should be isolated and quarantined in a building set apart for the care and treatment of persons afflicted with said contagious or communicable disease, it shall be the duty of such health officer, and he is hereby empowered, to remove such afflicted person or persons to such building, and all expenses of such removal shall be paid by the board having jurisdiction of such cases, out of the general funds of the incorporated city or town wherein such board is established, or if without such city or town, then out of the general funds of such county, and if at the time of such removal such health board having jurisdiction of such case or cases,

shall not have provided the necessary attendant or attendants, nurse or nurses, to care for such afflicted person or persons, and there be no person or persons present at the time of such removal to care for such afflicted person or persons, it shall be the duty of the secretary of such board of health to immediately employ proper nurse or nurses, medical and other necessary attendant or attendants to care for such afflicted person or persons, and the service of such nurse or nurses, attendant or attendants shall be paid by such board, as above provided: And be it further provided, That it shall be the duty of said board or such health officer to provide said building where such person or persons shall be quarantined, as provided in this section, with suitable beds, bedding, cooking utensils and such other articles necessary for the comfort of said afflicted inmates; and said board or said health officer shall also, from time to time, as the same may be required during said period of quarantine in said building, furnish the necessary food for the sustenance of said afflicted inmates and the said nurses and attendants during said period of quarantine, and the expense incurred for the supplies herein provided for shall be paid by the said board, as provided hereinbefore in this section.

SEC. 9. In all cases of death from cholera, bubonic plague, leprosy, typhus fever, yellow fever, smallpox, diphtheria, membranous croup, scarlet fever, and cerebrospinal fever, the funeral shall be strictly private, and the burial shall be made according to the rules of the State Board of Health. No public or church funeral shall be held or any person permitted to enter the house containing the remains, excepting the relatives of the deceased, the minister and the undertaker and his (their) assistants, unless by permission of the health officer, and buried human remains shall not be disinterred nor removed without permission from the State Board of Health. (As amended February 12, 1915. See page 14, Acts 1915.)

SEC. 10. All trolley, steam or electric cars or other public conveyances which are known to contain the infection of any disease, or any such cars or public conveyances which may reasonably be supposed to contain such infection, shall, upon order of the state health officer or any health officer in whose jurisdiction the infected car or other public conveyance may be found, be disinfected according to the rules of the State Board of Health, and the cost of disinfection shall be paid by the company, person or persons owning said cars or other public conveyances: Provided, That any and all inspections and fumigations of such cars be at such times and places as not to interfere with the general traffic of the road. If at any time any city, town or region is under quarantine, all trolley, electric and steam railroad companies passing through any such quarantined city, town or region, shall obey the quarantine orders of the State Board of Health, which are issued for the purpose of preventing the spread of infection. Each violation of such order shall be a separate offense, for which a fine of one hundred dollars shall be assessed.

SEC. 11. The expenses incident to disease prevention shall be paid by the cities and towns in which the work may become necessary, and when without the corporation of cities and towns, said expenses shall be borne by the county. If at any time the authorities of any county, city or town fail, neglect or refuse to enforce the statutes and the rules of the State Board of Health for the restriction of dangerous, communicable diseases, then the State Board of Health, if in its opinion it becomes necessary, shall take charge and enforce the law and the rules, and all expenses shall be paid by the county, city or town in which such enforcement becomes necessary. Sheriffs, constables, marshals, police and all peace officers shall, if called upon by health officers, aid in the enforcement of this act.

SEC. 12. Any person who violates any provision of this act, or any rules or regulations of the State Board of Health for the enforcement of this act, shall be punished by a fine of not less than ten nor more than one hundred dollars, except as herein otherwise provided: Provided, That this act shall not be so construed as to apply to any litigation now pending in any of the courts of this state, but cases now pending shall be tried and determined as though this act was not in force.

SEC. 13. All laws and parts of laws in conflict with this act are hereby repealed.

SEC. 14. An emergency exists for the immediate taking effect of this act, therefore the same shall be in force from and after its passage.

## ANTI-TUBERCULOSIS LAW

### Chapter 149. Acts 1917.

AN ACT for the prevention and control of tuberculosis in the State of Indiana.

#### **Tuberculosis Infectious Disease.**

SECTION 1. *Be it enacted by the General Assembly of the State of Indiana,* That tuberculosis, being hereby declared to be an infectious and communicable disease, dangerous to the public health, it shall be the duty of every practicing physician in this state to report the name and address of every person known by him to be infected with tuberculosis to the health officer of the city, town or county in which such person resides, within five (5) days after such fact comes to the knowledge of the physician; it shall also be the duty of the chief officer having charge, for the time being, of any hospital, dispensary, asylum or other private or public institution to report the name, age, sex, color, occupation, place where last employed, if known, and the home address of every person having tuberculosis who comes under his care or under his observation, within five (5) days after such fact comes to his knowledge, to the health officer of the city, town or county from which such patient comes; and it shall be the duty of every authorized school physician to report the name, age, sex, color, school and home address of every school child, teacher or school janitor having tuberculosis who comes under his observation in the performance of his duties in connection with the medical inspection of schools within five (5) days after such fact comes to his knowledge, to the health officer of the city, town or county in which such child, teacher or janitor resides. (Acts 1917, ch. 149.)

#### **Health Officer's Report.**

SEC. 2. The health officer of every city, town and county in the state shall report, on or before the tenth (10th) day of each month, to the state board of health the names and addresses of, and all other information available concerning persons infected with tuberculosis, which have been reported to him during the previous month, as provided in section one (1) of this act. The state board of health shall appoint a deputy, whose duty it shall be, under the direction of the state board of health, to tabulate all such reports received from the health officers of the cities, towns and counties and to investigate the prevalence, causes and distribution of human tuberculosis in the state, and devise ways and means for restricting and controlling the disease. The results of his investigation shall form a part of the annual report of the state board of health, and shall be otherwise distributed as the state board of health may decide among the people of the state for their enlightenment as to the prevalence and dangers of tuberculosis and the best methods of its cure and prevention.

#### **Notice to Disinfect Premises.**

SEC. 3. The health officer of every city, town or county shall, as soon as possible after he received the report of any physician or other authority, as provided in section one (1) of this act, that a person under his care and observation is suffering from tuberculosis, except in the cases of inmates of hospitals, dispensaries, asylums or other similar private or public institutions, and also immediately after receiving notice, as hereinafter provided, of the removal of any such person infected with tuberculosis, ascertain the name and address of the owner or agent of the apartment, house, room or premises occupied by such person so infected with tuberculosis and immediately notify, in writing, such owner or agent that an apartment, house, room or premises owned or rented by such owner or agent is occupied by a person infected with tuberculosis, and further inform him of the duties hereinafter required of him in connection with the death or removal of such person in-

fected with tuberculosis, and in connection with the disinfection of such apartment, house, room or premises, and the penalties for failure to comply with such provisions.

**Duty of Health Officer to Disinfect.**

SEC. 4. When any apartment, house, room or premises is vacated by the death or removal therefrom of a person infected with tuberculosis, the owner or agent of such apartment, house, room or premises shall notify the health officer of the city, town or county in which such apartment, house, room or premises is situated that such apartment, house, room or premises has been vacated. Upon receiving such notice, such health officer shall, himself, or through his deputies, immediately disinfect such apartment, house, room or premises in the manner now or hereafter to be prescribed by the state board of health. All expenses of such disinfection shall be borne by the city, town or county in which the aforesaid apartment, house, room or premises is situated.

**Unlawful to Rent Premises Not Disinfected.**

SEC. 5. It shall be unlawful for any owner or agent to rent or allow to be occupied any apartment, house, room or premises vacated by the death or removal therefrom of a person infected with tuberculosis, until such apartment, house, room or premises shall have been thoroughly disinfected as above provided.

**Penalty.**

SEC. 6. Any physician, any chief officer having charge of any hospital, dispensary, asylum or other similar private or public institution, any authorized school physician, any city, town or county health officer, or any owner, agent or any other person violating any provision of this act shall be guilty of a misdemeanor and shall, on conviction thereof, be fined not less than ten dollars (\$10.00) nor more than fifty dollars (\$50.00).

**Repeal.**

SEC. 7. An act entitled "An act for the prevention and control of tuberculosis in the State of Indiana," approved March 5, 1915, is hereby repealed.

**Chapter 33. Acts 1939.**

AN ACT authorizing the State Board of Health to purchase and distribute pneumococci serum, diphtheria toxoid, smallpox virus and typhoid bacterins, and making an appropriation therefor.

(H. 585. Approved March 3, 1939.)

**Serums and Vaccines—State Board of Health—Purchase and Distribution.**

SECTION 1. *Be it enacted by the General Assembly of the State of Indiana,* That the State Board of Health of the State of Indiana is hereby authorized to purchase and to distribute and make available free to persons too poor to pay for it themselves, in accordance with the rules of said State Board of Health, pneumococci serum, diphtheria toxoid, smallpox virus and typhoid bacterins.

**Expenses—Appropriation.**

SEC. 2. For the purchase and distribution of the said materials and for expenses incident to such distribution and the keeping of records of the use of said materials, the said Board of Health is hereby authorized to expend the sum of twenty thousand dollars and there is hereby appropriated from any money in the general fund of the state not otherwise appropriated the sum of twenty thousand dollars.

**Emergency.**

SEC. 3. Whereas an emergency exists for the immediate taking effect of this act, the same shall be in full force and effect from and after its passage.

**Chapter 259. Acts 1935.**

AN ACT to amend sections 1, 2 and 3 of an act entitled "An act to amend sections 1, 2 and 3 of an act entitled, 'An act to amend sections 1, 2 and 3

of an act entitled "An act requiring counties, cities and towns to supply free antitoxin to citizens who are too poor to purchase the same, directing the duties of township trustees, physicians and the state board of health in regard to the matter, repealing acts in conflict and prescribing penalties," approved March 9, 1907, approved March 14, 1919," approved March 11, 1929, and requiring counties, cities and towns to supply certain viruses to indigent citizens on the same terms and subject to the same conditions on which antitoxins are furnished.

(S. 222. Approved March 12, 1935.)

**Antitoxin and Virus Free for Poor—Printed Blanks—Amendments.**

SECTION 1. *Be it enacted by the General Assembly of the State of Indiana.* That section 1 of the above entitled act be amended to read as follows: Section 1. That section 1 of the above entitled act be amended to read as follows: Section 1. That section 1 of the above entitled act be amended to read as follows: Section 1. That all counties, cities and towns in the state are hereby required to supply free of charge diphtheria, scarlet fever and tetanus (lock-jaw) antitoxin and antirabic virus to people too poor to purchase the same, under the following conditions, to-wit: That state board of health shall supply uniform printed blanks to all county, city and town health officers, who shall supply them to trustees and subordinate health officers, said blanks to be printed by the board of commissioners of public printing and binding and to be known as diphtheria, scarlet fever or tetanus antitoxin and antirabic virus blanks, and said blanks shall call for the following information and affirmation: County, township, date, name and postoffice address of the father, mother or guardian of the child, or if neither of these exist or are unknown, then the name of the householder; name, age and sex of the child or person who is to be treated for diphtheria, scarlet fever or tetanus or immunized against rabies; whether or not microscopical test for diphtheria or the necessary tests for tetanus, scarlet fever or threatened rabies have been made; amount of antitoxin or virus desired and expressed in number of packages and in units; and such statistical and sanitary information as the state board of health may require. The physicians applying for free antitoxin or virus shall sign in ink the following affirmation, which shall be printed upon said blank: I solemnly affirm that the free antitoxin or virus herein applied for will be administered to the person named above, and it is my belief after inquiry that the parents are too poor to pay for the same.

**County, City or Town to Pay for Antitoxin and Virus—Amendments.**

SEC. 2. That section 2 of the above entitled act be amended to read as follows: Sec. 2. That section 2 of the above entitled act be amended to read as follows: Sec. 2. That section 2 of the above entitled act be amended to read as follows: Sec. 2. Upon the receipt of an official diphtheria, scarlet fever or tetanus antitoxin or antirabic virus blank duly filled out and signed in ink by a physician as provided in this act, any dealer may supply the diphtheria, scarlet fever or tetanus antitoxin or antirabic virus called for in said blank, and said blank shall be a legal claim for the market price of the antitoxin or virus furnished, against the county, city or town, in which it is used and against which the blank is issued. All costs which may be incurred in furnishing any such antitoxin or virus shall be paid by such county, city or town without appropriation.

**Township Trustees to Keep Supply—Records and Report of Health Officers—Amendments.**

SEC. 3. That section 3 of the above entitled act be amended to read as follows: Sec. 3. That section 3 of the above entitled act be amended to read as follows: Sec. 3. Township trustees shall at all times keep themselves supplied through county health officers with diphtheria, scarlet fever and tetanus antitoxin and antirabic virus blanks, and shall supply them to physicians when needed and so also shall all health officers. County, city and town health officers shall check up and make official record of all cases in which free antitoxin and virus have been furnished in their respective jurisdictions, and they shall

promptly call the attention of the district prosecutor to any violation of this act which may come to their notice. County, city and town health officers shall, by the fifth of each month, for the preceding month, send direct to the state board of health the statistical certificate which is attached to each diphtheria, scarlet fever or tetanus antitoxin or antirabic virus blank and which has been paid and taken up; but said blanks shall not be a valid claim and shall not be paid and taken up unless the attached statistical certificate has been filled out in ink by the physician who signed said blank, and any health officer refusing or neglecting to make reports as herein provided shall be fined not less than ten dollars nor more than twenty-five dollars.

## Chapter 214. Acts 1941.

AN ACT to amend Sec. 2 of an act entitled "An act entitled an act to protect the health and lives of school children, and increase their efficiency, by providing healthful schoolhouses and requiring the teaching of hygiene," approved March 1, 1911.

### School Children—Room Temperature—Cleanliness of Children.

SECTION 1. *Be it enacted by the General Assembly of the State of Indiana,* That Sec. 2 of the above entitled act be amended to read as follows: Sec. 2. (a) Whenever, from any cause, the temperature of a schoolroom falls to sixty degrees Fahrenheit or below, without the immediate prospect of the proper temperature, namely, not less than seventy degrees Fahrenheit, being attained, the teacher shall dismiss the school until the fault is corrected; and it shall also be the duty of all teachers to immediately send home any pupil who is perceptibly ill in any way, or who is unclean and emits offensive bodily odors or who is infested with lice or other vermin; and the truant officer shall arrest and prosecute parents or guardians who do not rid their children of vermin and bodily uncleanliness, when notified to do so. Refusal of parents or guardians to free their children or wards of vermin or to bathe and cleanse them, making them fit to go to school, shall be punished by a fine of not less than five dollars and imprisonment for ten days or both. And if the refusal or neglect of parents or guardians to bathe and cleanse their children or wards makes it necessary, then the truant officer, upon order of the school authorities, shall have it done, the cost to be paid by the school authorities from the school funds. Whenever diphtheria, scarlet fever, or other contagious and infectious diseases break out in any school, it shall be the duty of the township trustee, school board, school trustee, or the school authority or authorities having control, to have medical inspection made of the pupils, and all found in any degree ill, shall be sent home and there retained until the local health officer gives a certificate of health, then such child may be again admitted to school: Provided, That no pupil shall be compelled to submit to medical inspection or examination or treatment under authority of this section whose parent or guardian objects to the same. Such objection shall be made by written and signed statement delivered to the pupil's teacher or to any person who might conduct such examination or treatment in the absence of such objection.

### Physical Examinations of School Employees.

(b) It shall be unlawful for school authorities to employ teachers, janitors or bus drivers who are addicted to drugs, or who are intemperate or who have tuberculosis or syphilis in an infectious stage. Every board of education and school trustee shall require a physical examination for tuberculosis, including adequate laboratory tests and X-rays, of all such employees of the board or school trustee at least once in three years and shall cause the physical examination to be made within one year from the date this act becomes operative. Such examinations, tests, and X-rays shall be made only by duly licensed doctors of medicine. The cost of such examinations, laboratory tests, X-rays, and the providing of diagnostic data shall be borne by the board of education. In lieu of the examination directed by such authority, with payment for the same by said board of education, an employee may be examined at his own expense by any other duly licensed doctor of medicine of his own

choosing. If the result of such examination indicates the presence of tuberculosis in an infectious state, the employee shall be ineligible for further service until satisfactory proof of recovery is furnished. If such employee is under contract or tenure protection, he may be granted any sick leave compensation provided by the board of education for other employees and shall, upon satisfactory recovery, be permitted to complete the term of his contract or, if under tenure, shall be reinstated with the same tenure status as he possessed at the time his services were discontinued, provided the absence does not exceed a period of three years: Provided, further, That it shall be unlawful for any school official to employ this act as a means of discharging any teacher or other employee for any reason other than failure to comply with the provisions of this act and upon proof thereof the same shall constitute malfeasance in office and shall be grounds for his removal therefrom.

**Cleanliness of Schoolhouses and Busses.**

(c) All schoolhouses and school busses shall be specially cleaned and disinfected each year, before they are used for school purposes. The cleaning shall consist in first sweeping, then scrubbing the floors, washing the windows and all woodwork, including the wooden parts of seats and desks, and the disinfecting shall be done in accordance with the rules of the State Board of Health. Township trustees, school boards, and boards of school commissioners who neglect or refuse to obey the provisions of this section, shall be fined in any sum of not less than ten nor more than one hundred dollars, and each said refusal or neglect shall constitute a separate offense.

**Convalescent Teachers.**

SEC. 2. All the provisions of Chapter 77 of the Acts of 1939 and acts amendatory and supplemental thereto shall apply and continue to apply to any such convalescent teacher for a period not to exceed three years.

**Emergency.**

SEC. 3. Whereas an emergency exists for the immediate taking effect of this act, the same shall be in full force and effect from and after its passage.

## **TENEMENT HOUSE LAW**

### Chapter 149. Acts 1913.

[S. 118. Approved March 8, 1913.]

AN ACT relative to the construction, alteration and maintenance of tenement houses, providing penalties for violation thereof, and repealing all laws in conflict therewith.

This was amended by Chapter 215 of the Acts of 1941 (Burns' Annotated Statutes 20-522).

**Title of Amendment.**

An Act to amend Section 22 and 30 and to repeal Section 23 of an Act entitled "An Act relative to the construction, alteration and maintenance of tenement houses, providing penalties for violation thereof, and repealing all laws in conflict therewith", approved March 8, 1913.

## **INSANITARY DWELLING LAW**

### Chapter 21. Acts 1917.

[H. B. 69. Law without signature of Governor.]

AN ACT concerning dwellings or places of residence unfit for human habitation or dangerous or detrimental to life and health and providing penalties.

**Buildings Unfit for Human Habitation.**

SECTION 1. *Be it enacted by the general assembly of the State of Indiana,* That whenever it shall be certified to the state board of health, or to the board of health of any city or town or the health commissioner of any county in

this state, or whenever such board or commissioner shall have knowledge that a dwelling or any part thereof is unfit for human habitation, or dangerous or detrimental to life or health by reason of want of repair, or of defects in the drainage, plumbing, lighting, ventilation or the construction of the same, or by reason of being infected with contagious disease, or for any other cause, or by reason of the existence on the premises of a nuisance likely to cause sickness among occupants of said dwelling; the state board of health, the board of health of any city or town or the health commissioner of any county may, within their respective jurisdiction, issue an order requiring all persons therein to vacate such dwelling or part thereof within not less than five (5) days nor more than fifteen (15) days for one or more of the reasons to be mentioned in said order. Such board of health or health commissioners shall at any time, for good cause shown, extend the time within which to comply with such order, and whenever satisfied that the danger from said dwelling has ceased to exist and that it is fit for habitation may revoke such order.

#### **Duty of Board of Health to Order Improvement.**

SEC. 2. Whenever any dwelling or any building, structure, excavation, business, pursuit, matter or thing, in or about a dwelling or the lot upon which it is situated, or the plumbing, sewerage, drainage, light or ventilation thereof, is in the opinion of the state board of health, the board of health of any city or town, or the health commissioner of any county in a condition or in effect dangerous or detrimental to life or health, such board or commissioner may declare that the same to the extent they may specify is a public nuisance, and may order the same to be removed, abated, suspended, altered, improved or purified as the order may specify. In addition to the above powers, said board of health or commissioner may also order or cause any dwelling or excavation, building, structure, sewer, plumbing, pipe, passage, premises, ground, matter or thing, in or about a dwelling or the lot upon which it is situated, to be purified, cleansed, disinfected, renewed, altered, repaired, or improved. If any order of a board of health or commissioner issued under the authority of the provisions of this act is not complied with or so far complied with as such board of health or commissioner may regard as reasonable, within such time as they may designate, then such order may be executed by said board of health or commissioner by themselves or through their officers, agents, or employes. Such orders shall be served upon the tenant and owner, or his rental agent for the premises, but may be served on any person who may have by contract with the owner assumed the duty of doing those things which the order may specify.

#### **Appeal to Circuit Court—Bond.**

SEC. 3. Any person who feels himself aggrieved by any order provided in this act, may within ten days of the making of such order file his petition with the circuit or superior court of the county praying a review of such order, and it shall be the duty of such court to hear the same at the first convenient day and to make such order in the premises as right and justice may require and such decision shall be final. Such party appealing to the circuit or superior court shall file with said court a bond in an amount to be fixed by the court with sureties to be approved by the judge of the court conditioned to pay all the costs on such appeal in case such person fails to sustain his appeal or the same be dismissed for any cause. Such proceedings shall be docketed as an action between such appellant and such board or commissioner, and shall be tried as civil actions are tried. The corporation counsel or the department of law in the city or town and prosecuting attorney in cases arising outside of cities and towns and in cities and towns which may not have a department of law or any other legal representatives, shall attend to all proceedings on the part of the board or commissioner.

#### **Penalty—Attorney's Fee.**

SEC. 4. Any person who shall violate any provision of this act or who shall fail to comply with any lawful order of the board of health or commissioner as provided in this act shall be guilty of a misdemeanor and shall be punished by a fine of not more than twenty-five (\$25) dollars or imprisonment for not less than ten (10) days nor more than thirty(30) days and each day

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such violation or failure to comply shall continue, shall constitute a separate offense. Any person violating this act or failing to comply with any lawful order of any board or officer as provided in this act shall be liable for all costs and expenses paid or incurred by a board of health or commissioner in executing any lawful order, which may be recovered in a civil action brought by such board or commissioner who shall in such action also recover attorneys fees reasonable in such action.

**Limitations of Act.**

SEC. 5. Nothing herein shall be deemed to repeal any existing valid city or town ordinance dealing with any of the subject matter of this act, and the inspector of buildings in any city or town shall, within the limits of the city or town in which he is an official, have and exercise all the powers granted to such inspector in such ordinance, and such inspector may exercise any of the powers granted in this act to boards of health or health commissioners.

**State Board of Health.**

SEC. 6. The state board of health shall not exercise any of the powers granted to it in this act without first giving notice to the board of health of the city or town or the health commissioner of the county setting forth the conditions which have been certified to it or of which it has knowledge. Upon failure of such board of health or commissioner to act within three (3) days after such notice the state board of health may exercise the powers herein granted.

**“Dwelling” Defined.**

SEC. 7. The word “dwelling” wherever used in this act shall be taken to include not only any dwelling house and parts thereof, but also any part of any building used as a place of residence or habitation by any person, or for sleeping purposes.











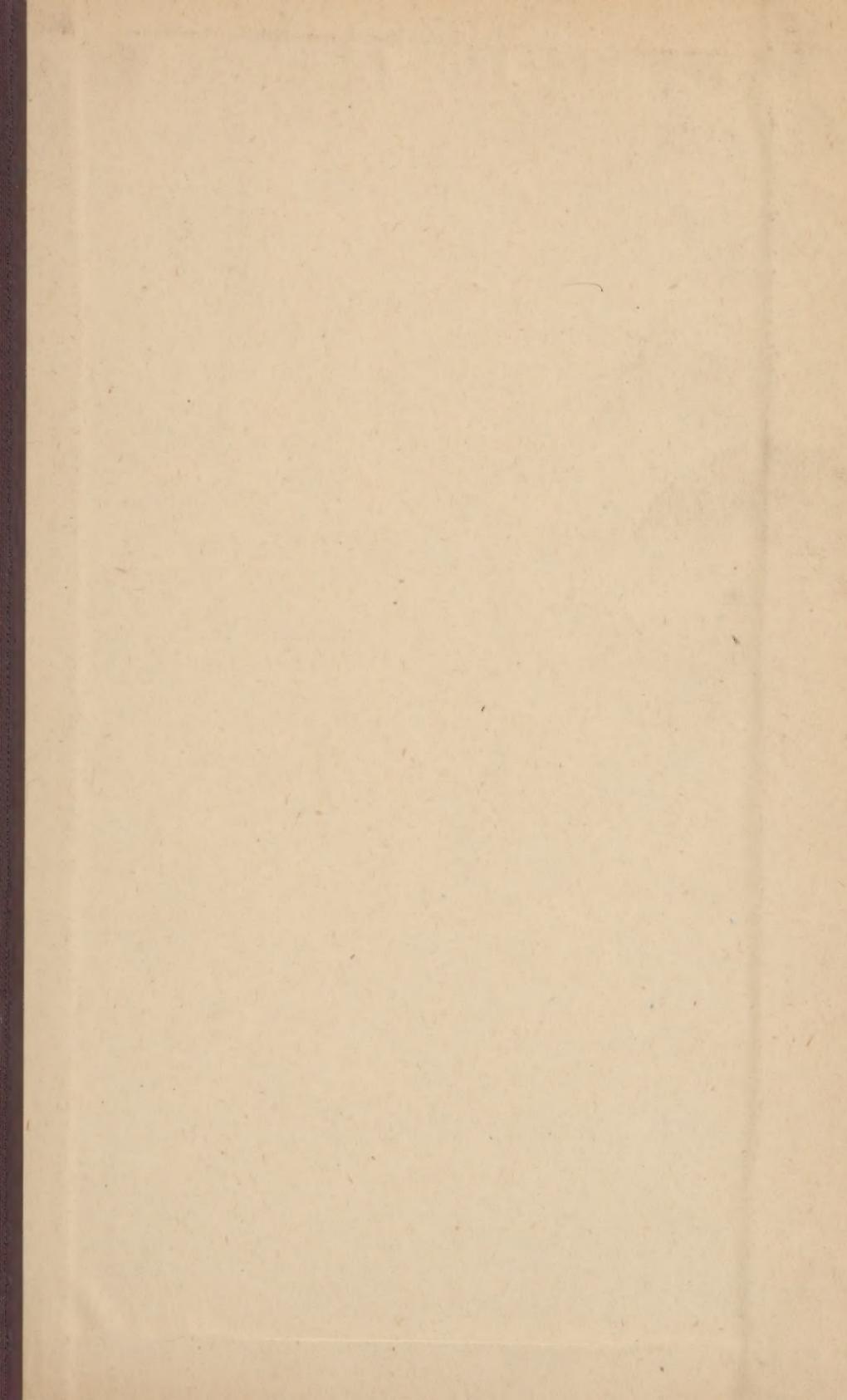












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